Clinical Lecture
ON THE
CAUSES AND CURE OF INSOMNIA.

Delivered in the Queen's Hospital, Birmingham,

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(Concluded from page 858.)

I HAVE been considering a kind of insomnia in which unnatural excitation of the cerebral cells is the initial fault. In a very few words I shall indicate the other forms of the disorder—the toxic and the senile.

In toxic insomnia, the cause of the sleeplessness acts primarily upon the vessels of the brain, giving rise to some degree of arterial hyperæmia. A poisonous agent maintains cerebral vascularity at such a height that conscious cerebral activity—that is, wakefulness—is an inevitable consequence. Such a poison may be introduced into the body from without, or it may be a product of diseased processes arising within the body itself. Of course I use the word "poison" in a restricted sense; I do not mean something which kills, but only something which produces abnormal manifestations in the living body. The external poisons which most frequently cause sleeplessness are tobacco, alcohol, tea, and coffee; the internal, certain effete products of tissue-metamorphosis which accumulate in the bodies of gouty persons or of those whose kidneys act deficiently. Many a man does not and cannot sleep sufficiently because he smokes excessively. Cut off his cavendish or his cigars and he will sleep well. Many smokers know that they sleep badly if they smoke more than their usual quantity of tobacco, or if they smoke stronger tobacco than that to which they are accustomed. If a man who smokes two cigars every evening is induced at some time to smoke three, or if a smoker of bird's-eye ventures to replace it by cavendish, he may, when he has gone to bed, find he cannot sleep; and the cause of his sleeplessness is the smoking of more or of stronger tobacco than by habit he has hitherto borne without discomfort. Men of distinctly nervous temperament, or men in whose temperament there is a distinct and considerable admixture of the nervous element, are usually the largest smokers. Men who are slow and calculating are rarely smokers; men whose activity is of an objective type are happy in rarely feeling the nervous unrest which tobacco calms. Tobacco-smoking stimulates the cerebral circulation; it disposes to a succession of pleasing ideas by inducing an easy flow of mental activity. But this stimulation of the blood-flow in the brain is sure, if pushed to undue limits, to induce cerebral vaso-motor debility or paralysis, and, as a consequence, persistent conscious thought. Sometimes, then, a man consults us for the relief of insomnia, and we find he is young, he has had no trouble, he takes plenty of food and exercise, and he does not overtax his brain. But he is an excessive smoker; he smokes morning, noon, and night, and he has gone on from the mildest tobacco to the strongest. He need not give up, or shorten, or change his work, and he surely does not need drugs; cut off or cut down his smoking, and he at once sleeps well. And so, *mutatis mutandis*, does alcohol cause sleeplessness. The man who drinks to commencing drunkenness mostly sleeps soundly, if not well. But many a so-called moderate drinker knows that he sleeps badly if he takes a little more than his usual quantity of wine after dinner, or even his usual quantity of some unusual wine. Alcohol flushes and dilates the smaller blood-vessels, especially those of the brain; if such a condition be maintained sleep is disturbed or wanting. We have all seen the insomnia of delirium tremens: the patient cannot sleep because the lesser arteries of his brain are paralysed by alcohol, and sleepless cerebral activity is the inevitable consequence. Far short of what is usually called alcoholism, we often meet with cases of insomnia in which alcohol alone is the cause of the wakefulness. The patient may pride himself upon his moderate use of fermented stimulants, and he may be wholly ignorant of the cause of the sleeplessness for which he consults us. We fail to find any sufficient psychic cause for his insomnia; but if we take away or diminish his wine or his grog, or induce him to consume it before the evening, we find that he shortly begins to sleep well.

The effects of tea and coffee in causing wakefulness are well known. Some individuals are extremely susceptible to the action of these stimulants. We sometimes meet with persons, mostly women, who habitually drink enormous quantities of strong tea; such people are usually troubled with flatulent dyspepsia, and sleep badly, but they rarely suffer from serious insomnia.

On this occasion I can only mention those varieties of toxic insomnia which are apt to occur in gouty persons, or in those whose kidneys are failing, and which arise from the accumulation in the blood, in consequence of deficient excretion, of the products of tissue-metamorphosis. Insomnia of this kind is rarely complete. But the patient may complain that he sleeps very badly, that he lies awake for some hours and has great difficulty in getting off to sleep, that he is easily awakened and wakes frequently, and that he always dreams when he sleeps. In such a case we may find a pulse of high tension; the aortic second sound may be accentuated, and the first sound of the heart may be reduplicated at the apex. Where there is chronic renal disease, we may also find the direct physical evidences of the characteristic cardiac hypertrophy which accompanies chronic interstitial nephritis. I believe that insomnia in such cases is due to the maintenance of a state of high tension in the cerebral arteries. I wish to impress upon you that we find the clue to many cases of sleeplessness in the signs of the gouty diathesis or in the discovery of albuminuria.

Again, there is a senile form of insomnia. You may perhaps have observed amongst your friends that an exaggerated appreciation of the merits and value of early rising mostly increases as age advances. The sleeplessness from which many old persons suffer is mainly, if not entirely, the result of senile degeneration of the smaller cerebral arteries. Those vessels are less elastic and less contractile than in health, and their weakened walls often lead to their permanent dilatation; they are physically unable to adapt themselves fully to the condition of relative arterial anæmia which is requisite for healthy sleep. The tendency of this condition of the bloodvessels of the brain to prevent or diminish sleep is probably to a great extent counteracted by the cardiac feebleness which so frequently and so fortunately coexists with the vascular changes.

In the treatment of insomnia we must often use soporifics. Of these the chief are chloral, opium, morphia, the bromides, Indian hemp, alcohol, and affusion with cold water. The successful treatment of a case of sleeplessness follows from the discovery of its cause. In the severer forms of psychic insomnia we must at once secure sleep by some efficient hypnotic. I prefer chloral. By its use alone we can often quickly cure acute insomnia depending upon some sudden mental shock or strain. A few nights of sound and sufficient sleep, artificially induced, will do more than anything else to restore to the brain the power of sleeping without aid from drugs. In the more chronic forms of psychic insomnia, where the sleeplessness or wakefulness usually depends upon prolonged worry or overwork, I employ chloral sparingly. It should only be used as a temporary remedy, when it is necessary that we should at once secure a fair amount of sleep. The patient ought never to be allowed to swallow this dangerous but valuable drug whenever he feels disposed, or to apportion its dose for himself; he ought only to take it upon the special prescription of his doctor. An overworked man must never be permitted to go on with his overwork, and habitually secure sleep by chloral or any other hypnotic. In such a case we must always aim at preventing the sleeplessness by removing its cause, instead of permitting that cause to continue and trusting to counteract its effect by medicines. When a man cannot sleep because he works his brain too much, we must insist that he stop or greatly diminish his work. But I must warn you that real work is rarely the cause of insomnia. Work fits for rest. It is mostly worry, not work, that brings unrest. It is not work that wears, but worry. A holiday, with complete change of scene, will often do much to effect a cure. The old maxim, *Cælum non animum mutant qui trans mare currunt*, like many other maxims, old and new, is not always wholly true. Send an overworked and worried merchant or barrister from his counting-house or his chambers in a busy town to a quiet village by the sea, or across the channel to a French watering-

place, and let him substitute walking, and bathing, and rowing, and fishing for his books or his briefs, and he will often need no physic to make him sleep soundly and sufficiently. But many cases of psychic insomnia can only be cured with the aid of drugs. In the well-nourished, bromide of potassium is by far the best hypnotic. It soothes the irritated and irritable cerebral cells; it is a direct and absolutely safe brain sedative, and it is marvellously powerful in producing nervous calm. But it must be given in full doses, thirty to sixty grains at bedtime. It is well to conjoin with it some drug which will favour the contraction of the weakened cerebral vessels; for this purpose we may give tincture of ergot or tincture of digitalis, one or both. In many cases of chronic wakefulness, arising from mental strain, the patient is distinctly anæmic. Unless the anæmia be remedied the insomnia cannot be cured. The patient's pale face and compressible pulse declare the condition of his blood. Such a person mostly feels drowsy when he is up, and wakeful when he lies down. Of course he needs iron; we may give him a grain or two of reduced iron, sprinkled on a piece of bread, or a wineglassful of Orezza water, after each meal. His diet must be liberal, containing plenty of fish, meat, and eggs. For such a patient alcohol is often the best hypnotic. To many people a "nightcap" of toddy is a superfluous and hurtful luxury. But it can give, perhaps better than anything else, rest and sleep to the exsanguine and worried brain. We must never be blind to the responsibility we incur when we prescribe alcohol. When we use it as a remedy in the treatment of disease we must state distinctly the reasons for its adoption, and we must discontinue it, as we discontinue the employment of other drugs, when the conditions which called for its exhibition have disappeared. If I am sure of anything in therapeutics, I am sure that alcohol is the best hypnotic in many cases of chronic psychic insomnia when the patient is worried, sorrowful, weakly, and anæmic.

Many minor points are worthy of attention in the cure of chronic psychic insomnia. In most cases, whether he sleep badly or well, the patient ought, from day to day, to go to bed and get up at some fixed hour. Healthy sleep tends to occur periodically. Daily bodily exercise, short of great fatigue, must be enjoined. Riding in a carriage is good, walking better, riding on horseback the best of all. A worn and self-worrying man, wrapt up in the absorbing current of self-consciousness, may take exercise in a carriage or upon his legs and still keep up his fretting, but he must come out of himself when he gets into a saddle. Gardening, for those who live in the country, affords good exercise; and is very efficient in keeping up objective attention. Those who live in towns may find good objective employment in chopping wood; if they have not trees to fell, they can at least copy Archbishop Whately, and give their minds a refreshing objective turn and their muscles healthy work by cutting up firewood. People who find it difficult to get off to sleep are sometimes advised to diligently and monotonously count one, two, three, up to a thousand or more, until they fall asleep; to watch in imagination each one of a large flock of sheep squeezing through a narrow opening; to picture some familiar landscape and keep the mind fixed upon it; to repeat the letters of the alphabet, &c. These are expedients for changing the current of cerebration. For a night or two one or the other may succeed, but they cannot be relied upon. These practices often even keep up wakefulness; when the mind attends closely to them they perpetuate the subjectivity which keeps the brain from resting. Very often the surest way of keeping awake is to try hard to get to sleep. We do most things best when we forget ourselves: going to sleep is no exception to the rule. When the contractility of the cerebral arteries has become much weakened by prolonged thought, and when, as a consequence, there is wakefulness, sleep may often be induced by the temporary application of cold to the general surface of the body. A person who has been lying awake will often fall asleep at once after getting out of bed and sousing his head, neck, and hands in cold water, or after (following Charles Dickens's plan) standing at the bedside until he feels chilly, and turning over, shaking up, and cooling his pillows and the bedclothes.

Just a word about the treatment of the other varieties of insomnia. In the toxic kinds we take away or diminish the tobacco, the alcohol, the tea, &c., as the case may be. *Cessante causâ, cessat et effectus.* A discussion of the treatment of gouty insomnia and of the sleeplessness arising in some chronic renal diseases would involve a consideration of the whole question of the therapeutics of the maladies upon which these forms of wakefulness depend. I shall only say that in gouty lithiasis, with a pulse of high tension, I have confidence in the curative effects of colchicum, supplemented by the exhibition of dilute saline purgatives, such as Pullna, Friedrichshall, Hunyadi Janos, or Rakoczy waters. Senile insomnia is very obstinate; perhaps in the bromides, with full doses of hop or henbane, we have the best and least harmful means for its relief.

Lettsomian Lectures
ON THE
SURGERY OF THE FACE.

Delivered at the Medical Society of London, February 1878,

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LECTURE III.—PART III.
NON-CONGENITAL DEFORMITIES OF THE FACE.

HAVING disposed of the congenital malformations, I now pass on to consider the deformities of the face occasioned by accident or disease.

A very rare case of unilateral atrophy of the face, caused by pressure of a thin cicatrix on the left side of the face and neck, is reported by Dr. Hering in Langenbeck's Surgery (1867); and an interesting example of hypertrophy of the lower part of the face has been published by Mr. Barwell,[1] by whose kindness I am enabled to show you these photographs. Tumours of the lips of course produce more or less deformity, and to these I referred in my first lecture on the diseases of the face.

Plastic operations on the face.

There is perhaps no department in surgery that has received more attention than plastic operations of the face, and as every case must be judged on its own merits, no exact or fixed rule can be laid down as applicable to all.

With regard to such operations, it will be well to consider them as two distinct classes—(1) Those that are undertaken for disease, and to remedy deformities necessarily occasioned by the surgeon in removing epitheliomatous or other growths; and (2) those that are undertaken to improve deformities occasioned by accidents, such as burns, gunshot injuries, &c.

Respecting the upper and lower lips much may be done without resorting to the transplantation of skin. The soft parts of the face are so mobile that with proper precautions they may be stretched to almost any extent, the one point necessary being that the soft structures should be thoroughly separated from the subjacent bone; hence some surgeons, Mr. Furneaux Jordan[2] amongst the number, speak confidently of making a mouth with one lip, either upper or lower.

The formation of a new upper lip.

Various plans have been suggested and practised to form a new upper lip. Thus Bérard[3] made two parallel and almost vertical incisions, so as to include a portion of the skin of the cheek on each side of the nose, and, bringing the flaps downwards, united them in the middle line. Sédillot[4] dissected a square portion of skin from each cheek, and united the parts in the centre. Dieffenbach[5] made an **S**-shaped incision on each side of the alæ of the nose, and, detaching the flaps, brought them down to the median line. And the late Mr. Teale, of Leeds, in operating for the restoration of the upper lip after burns, made "a crucial incision, having its point of intersection immediately below the septum of the nose." In a case of severe burn of the face which was recently under my care, and in which there was great eversion of the upper lip, I made a **V**-shaped incision through

[1] Clinical Society, March 12th, 1875. [2] Surgical Injuries, p. 18.
[3] Follin et Duplay, Traité Elémentaire de Pathologie externe, vol. iv., 1875, p. 657.
[4] Prov. Journal, 1848, vol. xii., p. 90. [5] Follin, vol. iv., p. 657.

the whole thickness of the lip, leaving the prolabium; the edges were then brought down, and thus, when the parts were united, the incision assumed the form of a Y. I referred to this patient in my last lecture.

Restoration of lower lip.

In remedying deformities of the lower lip after removal of disease, Buchanan's operation, which was first performed by that surgeon on May 20th, 1835, is sufficiently well known to you to require no comment from me.[6]

Chopart operated thus:—He made a vertical cut from the free edge of the lip on each side of the disease, and carried the incision under the chin. The quadrilateral flap is dissected off from above downwards. A transverse incision is then made below the disease, and the remaining portions brought up to the free edge of the lips.

For extreme deformities of the lower lip from burns I believe the best kind of operation is that designed by the the late Mr. Teale; and as you are doubtless familiar with the details of that operation, I need not occupy time by describing it. In relation to this subject I may be permitted to refer to a case that was under my observation, in which there was great deformity of the face, neck, and chest, with a gradual and daily increasing dragging down of the lower lip. In this example I performed an operation known as *autoplastie par glissement*. Two bridges of skin were raised on each side and brought together in the median line. The details of the operation are fully reported in the St. Thomas's Hospital Reports for 1872.

Restoration of mouth.

In injuries, as from burns, the mouth is sometimes so contracted as to be a great discomfort to the patient. Some years ago I operated on a girl with a singularly contracted mouth, in the following manner. I passed a wire through the cheek about half an inch from each angle of the mouth, and allowed it to remain until a permanent hole was established. When the hole had quite healed, I introduced a knife through the aperture and divided the soft structures into the mouth, and stitched the mucous and cutaneous surfaces together. Mr. Husband, of York, refers to a case of much the same kind that was under his care. The patient was a young man, aged nineteen, who was severely burnt when he was six months old. The mouth was all but closed.[7]

Restoration of the nose.

When the whole or greater part of the nose has to be restored, the surgeon may select one of three methods—1st, the French method of taking a flap or flaps of skin from the face; 2nd, the Indian method, which consists in taking a flap of skin from the forehead; or 3rd, he may choose the Italian or Taliacotian operation.

I will now speak of these methods categorically; and first, with regard to restoring deformities of the nose by the French method (*la méthode par déplacement*). M. Serres,[8] in forming a new nose, recommends that the skin should be freely separated on either side, and each portion lifted towards the median line; or the incisions may be extended laterally into the cheek, as recommended by M. Labat.

The Indian or Kooman operation is stated to have been introduced to the notice of European surgeons by our countryman, a Mr. Lucas, since which it has been employed by Carpue, Travers, Liston, and other surgeons. Diffenbach, who was a master in rhinoplastic as, indeed, in every other department of surgery, gives several practical hints as to the performance of the operation, which are embodied in a paper on this subject in THE LANCET, vol. i. 1835, p. 388.

Dr. Lichtenberg and our honorary secretary, Mr. Astley Bloxam, have shown themselves assiduous workers in this department of surgical science, and the photographs I hand round illustrate remarkably well the success which has attended their efforts. And I may be permitted to refer to a case that was under my own care at the Westminster Hospital in 1871, in which I performed what may be termed a mixed method, and which I have never seen practised. Three flaps were taken, two from the cheek and one from over the nasal bones. These flaps were raised and turned inwards and downwards respectively. A portion of skin was then raised from the forehead, and being twisted at its pedicle, its raw surface was applied to the other three raw surfaces. The parts were stitched together, and the patient made a good recovery.[9] I may add that in this case, when the wound of the forehead was granulating, I took a piece of skin the size of a shilling from the patient's arm and transferred it to the granulating surface with marked benefit to his personal appearance. I regret that, from circumstances beyond my control, I could not secure a photograph after the operation, but the case when under treatment was sufficiently well known both at the Westminster and St. Thomas's Hospital.

Respecting the third method, or the Taliacotian operation, Alexander Benedictus, a Veronese, of Padua, appears to have been the first[10] to write on this subject in 1495, and thus describes the operation, which was really much the same as that practised by Taliacotius. The operator dissected the upper skin of the arm with a razor, and then, paring off the remaining edges of the nostrils, or if necessary cutting them away, he bound the arm to the head, in order that wound might adhere to wound. After this, the wounds having conglutinated, he separated from the arm with the knife as much as was wanted for the restoration of the nose. He adds, however, that these artificial noses badly endure a severe winter, and he recommends his patients to use them gently, lest they be torn from the trunk. Those who are interested in this subject will be glad to know that we are fortunate enough to have in our library a copy of Taliacotius' work, which was published in 1597. The Taliacotian operation seems almost to have died with its supposed author, for in the medical journals I do not remember to have met with a single instance (with one exception, and this was to restore the lip), in which this operation has been published. Of course they may have escaped my notice, but I have not unfrequently met with cases described as the Taliacotian operation, but which on reading have turned out to be the Indian method. My colleague, Mr. MacCormac, has performed the Taliacotian operation in two instances. Once on a girl, aged sixteen, on Feb. 12th, 1877, whose case has been fully reported in the Transactions of the Clinical Society. The deformity was occasioned by sloughing after injecting a nævus at the root of the nose with the pernitrate of iron.

As to the result of these operations, there is one point to which I may refer, and it is the peculiar bloodless appearance of the newly-formed nose. Perhaps this may to some extent be remedied by tattooing the part, as practised by Professor Schuh, of Vienna. He employed it in the case of a young girl whose upper lip was formed from the skin of her arm, and which in eighteen months had not gained the normal redness of the lips.[11] The operation consisted of taking from ten to twenty needles, each surrounded with silk, and united into a bundle. They were dipped into a liquid of vermilion, and pricked into the lip until it took a natural colour.

Eyelids.

I need say little respecting the plastic surgery of the eyelids, for the deformities occasioned either by disease or injury in this region must be treated on their respective merits, and most of the operations are described in works on ophthalmology. I may, however, refer to a case of epithelioma involving the lower eyelid in which I removed the disease by a V-shaped incision. A flap of healthy skin was then detached and twisted on its pedicle, which became a very good substitute for the part taken away.

Again, in another case of severe ectropium after a burn, in a woman who was recently under my care at St. Thomas's Hospital, I performed the following operation. A V-shaped incision was made under the eye, and a flap of skin, being taken from the cheek, was twisted on its pedicle and inserted into the wound. I performed a somewhat similar operation to improve the less marked ectropium in the upper lid, but a portion of the flap which I took from the forehead sloughed. There was, however, nevertheless, some slight improvement. The case was not a favourable one for operation, inasmuch as the whole of the face was a mass of cicatrix, as the photograph indicates, and which I brought before your notice at the last lecture.

And now, Sir, although I confess I have experienced a natural anxiety in the preparation of these three short lectures, I nevertheless regret, for many reasons, that I have to bring them to a conclusion. The surgery of the face is without limit, for it includes almost the whole range of sur-

[6] London Medical Gazette, vol. i. 1842, p. 79.
[7] Medical Times, Jan. 3rd, 1857, p. 91.
[8] Difformités de la Face.

[9] THE LANCET, June 10th, 1871, p. 780.
[10] THE LANCET, 1823-24, vols. i. and ii., p. 109.
[11] Med. Times, Feb. 6th, 1859, p. 130.

gical art. My object has been to deal with the subject from a practical point of view, and I am deeply conscious that I have very imperfectly performed the task I have undertaken. Yet, in thanking you most sincerely for your kind and considerate attention, I earnestly hope you will not deem me unworthy of the distinguished position in which, by your favour, I have been placed.

ON GELSEMINUM SEMPERVIRENS.

By SYDNEY RINGER, M.D.,
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AND
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(Continued from p. 860.)

THE next case is of considerable interest, from the fact that it occurred in the person of a medical man, who appears to have carefully noted his sensations and symptoms. Dr. Main says[1]:—"In the summer of 1866 I took, through mistake, a drachm of fluid extract of gelseminum sempervirens, and immediately started to see a patient suffering from paralysis. The patient resided some eight miles off, and before arriving I became nearly blind. Control over the upper eyelids was almost lost. The flexor muscles of the hands and arms were paralysed, while the extensors were nearly so. Sensation was blunted in hands and arms, but not in proportion to the loss of motion. My speech was somewhat affected. A very disagreeable sensation of the head was felt, even before the muscles came under the influence of the drug, but my mind was quite clear. In this condition I arrived at the house of my patient, and as I was incapable of using my hands, I directed the nurse to apply the galvanic battery to the patient, and as she was about putting the instrument aside I asked her to apply the poles to my hands, which she did, and I was instantly relieved. The relief received was not only instantaneous, but perfect and permanent. I have tried the galvanic battery by way of experiment several times since upon those who were pretty well under the influence of gelseminum, and with a like result."

Dr. Main's statement that his mind remained perfectly clear is, we think, of considerable importance, as this is a point on which it is impossible to obtain information from experiments made on the lower animals. It should also be noticed that there was impairment of sensation in the hands and arms. Dr. Main speaks of partial paralysis of the arms, but does not say that the legs were in any way affected. We believe that this is characteristic of gelseminum poisoning. In several patients under the influence of the drug we have noticed loss of power in the arms and not in the legs. In one case the loss of power was confined to one arm. Dr. Main's hint respecting the treatment of gelseminum poisoning is undoubtedly of value, although it is difficult to see how galvanism applied to the extremities can influence a paralysed cord. We must, however, be guided by practical experience, and not by theoretical considerations.

In the year 1862 considerable interest was excited by a charge brought against Dr. E. A. Lodge, of Detroit, Michigan, of having committed the crime of manslaughter by unlawfully killing Margaret Washington by administering to her a certain noxious substance—to wit, gelseminum sempervirens. The details of the case are fully given in the American papers of the day. It appears that Margaret Washington was a coloured woman, of from twenty-five to thirty years of age, employed in the family of Dr. Lodge as a house-servant. She is described as being a fat woman, of low stature and short neck, robust in form, but usually languid in her movements. Her general health was excellent, and she was never known to complain of any illness or to ask for medicine. Dr. Lodge tells us that on the 15th of January, shortly before supper-time, he gave her, with her full consent, about fifteen drops of tincture of gelseminum, with the view of investigating its physiological action. This tincture had been prepared twenty hours previously with dilute alcohol from a sample of the dried root. Dr. Lodge says: "After supper I went upstairs to the second storey front room and sat down at my writing-table. While I was thus engaged Margaret hurries upstairs from the basement, comes into my room breathing very hard, exhibiting in her countenance intense fear, and exclaiming, 'Oh, doctor, I'm dying! I'm dying!—do something for me.' She attempted to lie down upon the bed, but her head barely touched the pillow when she sprang up, convulsively calling out in a loud whisper, 'My breath! my breath!' She clapped her hands across her breast rapidly, and seemed unable to retain one position for more than a few moments. Finding that her pulse was below 40, and that her extremities were cold, I resorted to stimulants, and sent out for the assistance of two medical friends. She rallied for a few minutes, then struggled as if for breath, and cried out. Presently she was taken with an excruciating chest pain. In a suffocative spasm she sat down upon the floor, went into an apoplectic stupor, breathing hard, foaming freely at the mouth, and died within ten minutes of the suffocative spasm. Previous to the spasm she was conscious and rational; after that she did not speak. From the time of her coming into the room to her death was less than half an hour, and the time of death was within two hours of taking the medicine."

One of the medical men called in by Dr. Lodge found the patient lying on the floor, with extremities cold, no perceptible pulse, eyes staring, and jaws rigid. There was at first slow, catching respiration, but this soon ceased, and she died within ten minutes of his arrival. A post-mortem examination was made by order of the coroner, and is thus described in evidence by Dr. Charles H. Barrett:—"I made a post-mortem examination of Margaret Washington. I opened the head, and examined the brain and its membranes. Substance of the brain healthy; there was considerable venous congestion of the membranes of the brain. Substance of lungs healthy; pleura slightly adherent; old adhesions, three or four perhaps. The heart of natural size; pericardium slightly adherent to the sternum. Within the sac I found a quantity of light-coloured serous fluid, to the amount of three ounces, I should judge. I did not measure or weigh it. I guessed at it. There was much more than the usual quantity. Stomach no sign of inflammation. Liver and spleen healthy." Dr. Barrett added that there was no disease of the heart itself, and that in his opinion death was produced by the dose of medicine combined with the dropsy of the heart.

As the result of the inquest, Dr. Lodge was committed for trial. The prosecution endeavoured to prove that Margaret Washington died from the administration of gelseminum; whilst the object of the defence was to show that the gelseminum had nothing at all to do with it, and that she in reality died either from angina pectoris or from fatty degeneration of the heart. A great many skilled witnesses were called, and there was the usual amount of contradictory evidence. Ultimately a verdict of "Not guilty" was returned.

This case obviously presents several points for consideration. Was the cause of death angina pectoris? We think not. We believe, from the evidence, that Margaret Washington was a very unlikely person to suffer from that disease. In the first place, angina predominates vastly in males, the ratio of ten to one being deducible from some published estimates.[2] Again, the disease is rare before the fiftieth, excessively so before the fortieth year. This patient, it will be remembered, was under thirty. Moreover, although the first paroxysm occasionally proves fatal, such a termination is excessively rare, and in the vast majority of instances the complaint runs a somewhat protracted course. There are other arguments which might be adduced in support of our opinion, but these three taken together will, we think, suffice to negative the view that the cause of death was angina pectoris. As the post-mortem examination clearly showed that "there was no disease of the heart itself," we cannot see how the theory can be maintained that the patient died from fatty degeneration of that organ. We have no hesitation in saying that we believe the patient died from gelseminum, and from nothing else. It will be found that the majority of the symptoms from which the patient suf-

[1] Galvanism as an Antidote in Poisoning by Gelseminum. By J. T. Main, M.D.—Boston Medical and Surgical Journal, New Series, vol. iii. 1869, p. 185.

[2] Walshe: Diseases of the Heart.

fered were exhibited in one or more of the cases of which we have already spoken. This case in many respects strikingly resembles Dr. Boutelle's.

This, then, completes our cases of poisoning by gelseminum. For the purposes of comparison and reference we have arranged them in a tabular form.

TABLE OF CASES OF POISONING WITH GELSEMINUM SEMPERVIRENS.

No. of Case.	Reporter.	Reference.	Subject.	Dose and Preparation.	Chief Symptoms.	Treatment.	Result.
I.	Dr. King.	American Dispensatory.	Man.	Infusion.	Complete loss of muscular power.	....	Recovered.
II.	Dr. Hill.	Evidence given in Margaret Washington's case.	Five men.	From ½ pint to 1 pint(?) of the tincture each.	Paralysis; eyes closed; pulse weak; respiration scarcely perceptible.	Stimulants; large doses of quinine and capsicum; external stimulation.	All recovered.
III.	Dr. Pinkham.	Boston Medical and Surgical Journal, 1871.	Woman.	Forty drops(?) of liquid extract.	Diplopia; complete paralysis; jerky and imperfect respiration; livid countenance; drooping of lower jaw; ptosis; dilated pupils; quick, weak pulse.	Friction; stimulants (brandy, carbonate of ammonia, &c.)	Recovered. For some days great prostration; muscular weakness of lower jaw, eyelids, and arms; speech intelligible only when jaw supported, and voice thick and guttural.
IV.	Dr. Wormley.	American Journal of Pharmacy, 1870.	Young woman.	Three teaspoonfuls of fluid extract.	*In two hours:* Pain in stomach; nausea; dimness of vision; restless efforts to vomit; perspiration. *In five hours:* Great prostration; feeble, irregular, intermittent pulse; slow breathing; skin dry; extremities cold; pupils dilated; ptosis.	....	Died in 7½ hours.
V.	Dr. Davis.	American Journal of Med. Sciences, vol. liii.	Young man.	Tablespoonful of fluid extract (Tilden's).	Face congested; pupils dilated; ptosis; drooping of jaw; skin warm and moist; pulse small and feeble; respiration slow; pupils dilated; breathing spasmodic; surface cold; pulse weak.	Emetic, which failed to act; mustard to extremities; sponging with hot brandy; artificial respiration.	Died in 2½ hours.
VI.	,,	,, ,,	Man.	,, ,,	Staggering; drowsiness; numbness of whole body.	Emetic: 1 drachm of sulphate of quinine in brandy mixture.	Recovered. Weak and dizzy next day.
VII.	Dr. Freeman.	THE LANCET, 1873.	Boy, 3 years.	About 50 minims of tincture (1 in 5).	Diplopia; staggering; muscular relaxation.	....	Died in 2 hours.
VIII.	,,	,, ,,	Girl, 9 years.	Dessert-spoonful of tincture.	Dimness of vision; diplopia; loss of muscular power.	....	Died in less than 2 hours.
IX.	,,	,, ,,	Boy, about 3 years.	Two 10-minim doses of tincture in quinine mixture, at intervals of two hours.	*After first dose:* Prostration; staggering in walk. *After second dose:* Pupils dilated; froth at mouth; heart feeble and slow; pulse imperceptible.	Stimulating enemas.	Died 1 hour after second dose.
X.	Dr. Boutelle.	Boston Med. and Surgical Journal, 1874.	Man, 24 years.	Two teaspoonful dose of fluid extract (Tilden's) at intervals of 15 minutes.	Sensation of choking; struggle for breath; staggering. *In three hours:* Complete paralysis; respiration gasping, 3 or 4 in minute; pulse rapid and feeble; pupils dilated; drooping of lower jaw; skin moist; extremities cold.	Cold water dashed on face and chest; brandy-and-water frequently; 5 grains of carbonate of ammonia every 5 minutes; mustard to spine; friction to extremities; artificial respiration.	Died 3½ hours after first dose.
XI.	Dr. Main.	Boston Med. and Surgical Journal, 1860.	Reporter.	1 drachm of fluid extract.	Partial loss of sight; disagreeable sensation in head; partial loss of power and sensation in anterior limbs; speech affected.	Galvanism.	Recovered.
XII.	....	American Papers and Journals, May, 1862.	Woman, 25 to 30 years.	About 15 drops of tincture.	Struggle for breath; pulse slow; extremities cold; pain in chest; complete paralysis(?); foaming at mouth; pulse imperceptible; jaws rigid; slow, catching respiration.	Stimulants.	Died within 2 hours.

As we have not seen the account of Dr. Hanna's case, we have not included it in the table.

It would seem that the symptoms which most frequently result from large, though not necessarily fatal, doses of gelseminum, are staggering, muscular relaxation, partial or complete paralysis, ptosis, diplopia, drooping of the lower jaw, struggle for breath, and slow jerking respiration.

From the table it will be seen that the minimum fatal dose of the liquid extract of gelseminum is about two drachms. This quantity proved fatal in the case of a man aged twenty-four (Case 10). The strength of this preparation is said to be 480 grains to the fluid ounce, or 1 in 1. In the consideration of the minimum fatal dose of the tincture, it would be advisable for many reasons to exclude the Margaret Washington case. It would then appear that the minimum fatal dose of the tincture of gelseminum is twenty drops. This quantity, given in quinine mixture, proved fatal in the case of a boy aged three years (Case 9). We are not told the strength of this tincture, and it is quite possible that it may have been a very strong one, so as to be practically equal to the liquid extract. At all events, we believe that in the case of adults much larger doses, of an ordinary 1 in 4 tinc-

ture, may be given with perfect safety. We have frequently ordered twenty minims every two hours, and have on several occasions administered drachm doses hourly, for from three to six hours. It must be admitted, however, that some people are very much more susceptible to the action of gelseminum than others. Thus, in a woman aged thirty, ten minims of the tincture taken three times a day caused pain in the head and diplopia, whilst in another of our cases the patient, a medical man, took thirty minims five times a day without the production of any symptom, except weakness of one arm. In the majority of fatal cases death ensues in about two hours.

We know of no antidote to gelseminum sempervirens. As we have already shown, it causes death by paralysing the respiratory centre. It is stated, on the authority of Bezold and Bloebaum, that large doses of atropia stimulate the respiratory centres and accelerate the breathing, so that on theoretical grounds belladonna should prove the antidote. There is, however, at present not the slightest evidence that it is so. In many of the cases it will be observed that brandy and carbonate of ammonia have been administered, evidently on the supposition that it was chiefly the heart which was at fault. We see no indications for their employment, unless, indeed, the heart is obviously failing from causes not dependent of the condition of respiration. We have been told that benefit has been derived from the use of quinine, but on theoretical grounds it is difficult to see how it could do any good. The only method of treatment on which we should feel inclined to rely would be the maintenance of artificial respiration by some effectual plan, such as Silvester's, until either the poison had been eliminated from the system, or it was certain that the heart had ceased beating. As this procedure might have to be continued for some hours, relays of people should be told off to afford the requisite assistance. It should be the duty of one person to count the number of artificial respirations, and see that the movements were not performed too rapidly. The fact of the pulse being no longer perceptible in the extremities would not justify a discontinuance of the treatment. It is said that artificial respiration has already been tried and has failed; but, as we have already pointed out, there is nothing to show that it was effectually performed. It is important to bear in mind the necessity for keeping the patient thoroughly warm. Hot-water bottles or hot bricks should be applied to the feet, and the surface should be energetically rubbed with some stimulating liniment, such as hartshorn and oil. We lost several of our rabbits, in spite of artificial respiration, by neglecting to keep up their temperature by external warmth. We have no doubt that in the slighter forms of gelseminum paralysis the interrupted current applied to the limbs would do good, but we should not care to rely on it when the respiratory centre was involved, and the patient in danger of dying of asphyxia. If the case were seen soon after the poison had been taken, an emetic should be given; but if some time had elapsed, and the patient were obviously under the influence of the drug, it would probably not only prove useless, but would increase the prostration.

(To be continued.)

ON DISLOCATION OF THE HIP.

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(Continued from p. 862.)

NOTHING can be more simple than the reduction of secondary dislocations from below the socket. If dorsal, and the flexed thigh has fallen to a horizontal position by a spiral movement downward and inward, reverse the movement and reduce the limb by a spiral upward and outward. If thyroid or pubic, and the knee has followed a spiral downward and outward, reduce it by a similar movement upward and inward. But the spirals of reduction practically amount to mere flexion; therefore, in either case, flex the limb and jerk it upward; and in the thyroid luxations it is well to aid the process by outward traction with a towel or by a fulcrum in the groin. Finally, if the capsule offer resistance, sweep the flexed femur from side to side to separate its fibres and get the head below the socket, before jerking the bone up into place.

There is another point, which is now of less practical importance. By the now obsolete straight traction with pulleys reduction from the dorsum was sometimes difficult, or failed. Surgeons then called the dislocation "ischiatic." There was a superstition about the ischiatic notch. It was the maelstrom of the hip-bone. There was obviously in those days some real difficulty, which does not occur with the flexion method. Its most frequent source was the strong obturator internus muscle combined with an unusually sound and tense falciform edge of the subjacent capsule, interposed between the head of the bone and the socket, occluding the latter.

On this account I substituted for the term "ischiatic" the phrase "below the tendon," as explanatory of the manner of the displacement, the relations of the bone, and the general character of the difficulty of its reduction. The phrase "*below* the tendon" was desirable to distinguish this dislocation from those in which the head emerges *above* the tendon. In either case the head of the bone may reach and occupy a place "behind" the tendon. (*Op. cit.*, Fig. 15.)[1]

When my paper was written, the bugbear of the ischiatic notch was still feared, because the practice of reduction by straight extension was still in vogue. In fact, surgical works are still illustrated with pulleys from Sir Astley Cooper. For more than fifteen years I have neither employed nor taught reduction by straight extension, and I have long abandoned any especial description of the so-called ischiatic dislocation, whose chief and distinctive sign was that it resisted straight extension. For practical purposes this dislocation is dorsal, and may be called so. It is easily reduced by flexion.

So, also, it is useless to distinguish from the common dorsal dislocation those which lie between the small rotators; because, although interesting to the anatomist and the pathologist, it is very doubtful whether they will ever be diagnosticated with certainty during life. They exhibit, as I have shown, more inversion, more immobility, and more elasticity; but these signs are not pathognomonic. When these dislocations occur, the head of the bone is thrust directly backward through the capsule, and escapes, this time, not below the tendon of the strong internal obturator, but above it, by the muscular interstice between this muscle and the pyriformis, or even higher, between the pyriformis and the gluteus minimus. The bone may possibly be reduced from these positions by vertical traction, or prised back through the interstice by the abduction method or by outward rotation; but I think such attempts will generally end in rupturing the muscles. The dislocation would then offer no distinctive features, and would belong to the common dorsal variety, in which we can only guess what rotators are ruptured. Indeed, it is the rule in dorsal dislocation that the quadratus or some of the rotators are torn; which of them we need not know. Our business is to reduce the bone by flexion,—and by circumduction also, if that be necessary to rupture the capsule and muscles, and so to clear the way to a point below the socket, from which the femur can be lifted into place.

If, in accordance with these views, we suppress any distinct mention of the inter-rotator dislocations,—which indeed have never been separately classified (although, if it were possible always to identify them, they would deserve to be separately considered)—and of the obsolete ischiatic dislocation, by whatever name we call it,—we have the following classification of regular dislocations, based on their direction from the socket.

External to the socket,—the dorsal, and the everted dorsal.

Internal to the socket,—on the perineum, the thyroid foramen, and the pubes.

Below the socket,—the dislocation toward the tuberosity.

[1] The dorsal dislocation between the small rotator muscles, or any other which offered exceptional resistance, was no doubt sometimes mistaken for the "ischiatic" dislocation. I still incline to believe that my explanation of the old difficulty in "ischiatic" reduction is the correct one. The dislocation formerly called "dorsal" differs from the "ischiatic" in having the thick capsule which is behind the ilio-femoral ligament and beneath the obturator tendon, including the ischio-femoral band, so torn as to allow a greater shortening of the limb than used to be described as a sign of "ischiatic" displacement. During reduction by straight extension, the head of the bone could pass through the torn capsule to the socket as soon as it had slipped over the obturator tendon. The injury may be accompanied by the rupture of muscles, even of the obturator internus. In short, the classical dorsal and ischiatic dislocations differ from each other only in the extent of the laceration of the posterior capsule and muscles.

Above the socket,—the subspinous, the supraspinous, and the anterior oblique dislocations.

Of these, by far the more common are the *dorsal*, the *thyroid*, and the *pubic*, which offer the most convenient division for practical purposes. It leads to the following practical grouping of dislocations, based on the usual mechanism of their occurrence and of their reduction.

Dorsal,—the dislocation on the tuberosity, the dorsal, the everted dorsal, the anterior oblique, and the supraspinous.

Thyroid,—that on the perineum, and on the thyroid foramen.

Pubic,—the pubic and the subspinous.[2]

The ilio-femoral ligament is unbroken in these regular dislocations,—excepting only the everted dorsal and supraspinous varieties, in which its outer band is severed, while the inner band remains. All may be readily reduced after flexion, with or without circumduction: the thyroid and pubic with a towel or fulcrum in the groin, if need be,—in the one for outward, in the other for downward and outward traction. This method covers the reduction of the primary as well as the secondary forms of luxation.

It may here be added that a broken socket makes reduction difficult or impossible,—and that if the femur tends to escape after being reduced, the flexed thigh should be abducted down to the bed, and confined there at right angles with the body, to take advantage of the tense ilio-femoral ligament in holding the bone in place, as in an instance before mentioned.

In illustration of some of these points, let me cite a few cases.

1. The classical case, No. 43 of Cooper. In this case, during straight thyroid reduction, the knee was raised, and the ligament, of course, relaxed. The head of the bone was thus unintentionally dropped from the thyroid foramen to a point below the socket; in this position it should have been jerked up into place. But unfortunately the limb was again straightened. The head of the bone rose, this time not to the thyroid foramen, but upon the dorsum, where it was engaged behind the close-fitting capsule, and probably the obturator muscle. From this position it could not afterwards be drawn by straight extension, and was therefore pronounced irreducible. This case led Sir Astley Cooper to warn surgeons not to flex the thigh. In reality, flexion with an upward jerk was what the case required.

2. The similar case of Lisfranc (Malgaigne, "Fract. and Lux.," t. 2, pp. 818–829, pl. xxvi.): a dorsal dislocation, which that surgeon, with eight assistants, failed for an hour to reduce by straight extension. The patient then collapsed, and afterwards died. The autopsy showed a state of things which doubtless existed in the case of Cooper. The neck of the bone was closely tied by the capsule; the head had emerged below the obturator internus, and was behind it. It was easily reducible by flexion.

3. Parmentier's case of dorsal dislocation between the rotators (Bull. Soc. Anat., 1850, p. 176). The posterior half of the capsule was largely torn. The head had escaped by a muscular buttonhole above the internal obturator, between that muscle and the pyramidalis, which is next it.

4. The similar case of Servier, above the latter muscle (Bull. Soc. Chir., 1863, p. 485). Here the articular capsule was completely torn behind, the head of the bone having escaped by the "posterior notch of the acetabulum" (beneath the tendon of the pyramidalis), emerging above the pyramidalis, which closely confined it.

5. The case of Dr. Fenner, of New Orleans, quoted in Professor Hamilton's valuable and comprehensive treatise on "Fractures and Dislocations" (5th edition, p. 676). The head was on the dorsum. The limb was shortened an inch and a half, and the toes turned inward. The capsule was torn through one-half its extent. Portions of the obturator externus, pyriformis, and gemelli were ruptured and lacerated. "Dr. Fenner now proceeded to cut away the muscles; and when all the external muscles about the joint had been removed, the thigh could not be brought down; the iliacus internus and psoas magnus were then severed, which permitted it to descend a little, but the head could not be replaced; the triceps adductor was then divided without effect; the ilio-femoral ligament was found tensely stretched. All the muscles between the pelvis and the thighs were then severed, and still it was impossible to reduce the dislocation; the head of the femur could not be forced back through the rent in the capsule from which it had escaped, and it was not until the opening was enlarged from one-half to three-quarters of an inch that the reduction was accomplished. Dr. Fenner infers that the capsule possesses sufficient elasticity to allow the small head of the femur to pass out through a lacerated opening, which might at once contract so as to offer considerable resistance to its return, and that occasionally this is the true explanation of the difficulty in reduction." Although the existence of this degree of elasticity may be questioned, there can be no doubt that a close-fitting rent in the capsule is practically a "buttonhole," whether in the straight or flexed limb.

Among the details of these few cases will be found evidence of the efficacy of the flexion method, of its mode of action, and of the character of a difficulty which was sometimes insuperable by the old method of straight extension. They show that this difficulty may result from the interposition of capsule or muscle, or both, between the head of the bone and the socket; or from a want of free aperture in the capsule, and that then the obvious resource of the surgeon is to enlarge the slit by circumduction. They show also the character of the intermuscular aperture between the rotators, which may require similar enlargement; and that it may sometimes be difficult to distinguish between these different impediments to reduction,—all of which yield to flexion, with circumduction if needed. All this is of the first interest to the surgeon, because it bears upon the question of reduction. The cases also contain evidence upon one or two points of minor interest and importance—viz., that dislocation may occur, not only with abduction as an element, as writers agree, but also by a direct thrust; and that in this case the socket need not be broken, as has been alleged.

(To be concluded.)

[2] This is perhaps the best practical classification. Although the subspinous and the supraspinous dislocations lie directly above the socket, the former is essentially a pubic dislocation, and, after flexion, needs only to be worked directly down into the socket. The supraspinous dislocation, on the contrary, like the anterior oblique, must be first unhooked from the ligament, and then circumducted to the socket by the way of the dorsum. It is essentially dorsal. In a regular dislocation, the bone does not pass the ilio-femoral ligament, whether it approaches it from the inside or the outside.

AN INTERESTING PATHOLOGICAL OBSERVATION ON THE LIFE OF BONE,

SEEN IN A COMPOUND COMMINUTED FRACTURE OF TIBIA AND FIBULA AT LOWER THIRD, ACCOMPANIED BY A COMPOUND DISLOCATION OF THE ANKLE-JOINT; TREATED ANTISEPTICALLY; RECOVERY.

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ARCHIBALD W——, a miner, aged thirty-four years, was admitted into the Glasgow Royal Infirmary on Oct. 4th, 1876, suffering from a compound dislocation of the left ankle, and a compound comminuted fracture at the lower third of the bones of the left leg, which he had sustained on Sept. 30th, 1876 (eighty-five hours previously), by a fall of coal from the roof of a mine in which he was at work. There was a lacerated, ragged wound, situated over the inner side of the left ankle, its long axis corresponding to the length of the limb. This wound was three inches in length, and fully two inches in breadth. The foot was everted, so as to expose the upper articulating surface of the astragalus, which was directed inwards. A portion of bone about half an inch in length, comprising the tip of the internal malleolus, was lying loose in the wound. About two inches and three-quarters of the distal extremity of the tibia protruded from the wound. Its articular surface for fully half an inch had lost its cartilaginous covering, and the exposed cancellous tissue presented a rugged aspect. Now a part of this exposed shaft was fractured as follows:—From about the middle of the distal articulating surface of the tibia a fracture ran obliquely upward and inward, so as to detach a portion of bone, which measured along its inner border two inches and a half in length. The periosteum was completely detached from this portion, saving only some very slender attachments, which ran up on both sides of the fracture (anterior and posterior) in an irregular manner, with

gaps between the slips of periosteum. They thus formed little bridges across the fracture, and none of these had a hold on the splinter of more than an eighth of an inch, except at the top, where the periosteum covered in the upper angle, clothing it for rather more than an eighth of an inch. This portion of bone was quite loose, and could be moved freely backward and forward, these slender periosteal strips being the only attachments which kept it in its place. The inner surface of this splinter was roughened and serrated, as if it had been scraped by some rugged material, probably coal, as the minute furrows were filled with coal débris. About two inches and a half from the external malleolus a compound fracture of the left fibula was found, the lower fragment protruding through a wound half an inch in length. The soft parts over the lower third of the leg and round the ankle and foot were much swollen, and exuded from the wounds an abundant, thin, brown, serous, semi-purulent discharge. The edges of the wound were infiltrated with coal débris and minute particles of cancellated osseous tissue. His constitutional state was anything but desirable. Rectal temperature 103·6° to 104°, sleep restless and disturbed, anorexia, vomiting, diarrhœa, and his urine loaded with urates. At a consultation which was held, amputation was advised, but this was postponed owing to the patient's unfavourable state, and to his unwillingness to undergo the operation. It is scarcely necessary to add that no aseptic precautions had been taken to preserve the wounds during the eighty-six hours that had elapsed from the time of the accident until his arrival in the hospital—a period sufficient to permit the setting up of serious septic conditions, to which the appearances of the parts and the constitutional state of the patient may be attributed, and a length of time much beyond that in which we are led to expect good results to accrue from antiseptics.

Under the circumstances an attempt was made to save the limb, and, failing that, it was hoped his general state might be improved, and he would be thus placed in a more suitable condition for operation. The wounds and exposed surfaces, including the joint, were thoroughly washed out, and injected with a strong spirituous solution of carbolic acid. The edges and parts of the wound that were infiltrated with coal débris and minute fragments of cancellated osseous tissue were pared. The tip of the internal malleolus that lay loose in the wound was lifted out; but the large splinter of the inner surface of the distal end of the tibia, which was attached only by a bridge of periosteum, and which was so mobile that it could easily have been removed by the finger, was allowed to remain—firstly, because its removal would have left only about one-half of the distal tibial articular surface opposed to the outer half of the articular surface of the astragalus, throwing thus the weight of the body on such a narrow point as would be apt to render the foot useless as a means of support; secondly, because its removal would probably result in a serious inversion of the foot; and thirdly, though admitting the probability of the whole piece being shed as dead bone, and believing that at least a considerable part of it would be so shed, still I hoped that a part of it might be saved, and I left nature to say how much.

The dislocation was easily reduced, and the limb was put up in a plaster-of-Paris splint, protected by mackintosh from imbibing the discharge, large windows being left in it for dressing.

Without going into detail, it may be stated that the wound was dressed and injected with one to twenty watery solution every eight hours during the first three days. The protective plaster, which during the first two days was blackened at the end of the eight hours, began on the third day to show a staining only at the margins, and at the last dressing on the third day it was free from black staining. During the next six days it was dressed every twelve hours, and for the next nine days it was dressed once in twenty-four hours. The discharge, which was at first profuse, thin, brown, semi-purulent, and slightly fetid, increased in quantity during the first few days, then gradually began to diminish and to become thicker, assuming the characteristic appearance of pus. On the twelfth day from the date of admission the pus was sweet and pure. His constitutional state had greatly improved, his rectal temperature was reduced to 100° F., he began to sleep soundly, his appetite returned, and he felt himself at ease; the wounds had assumed a healthy aspect, and were beginning to cicatrise.

From the first to about the eighth day the splinter of the tibia gave a ring resembling that of a piece of fresh bone newly removed from the body. From the tenth to the eighteenth day the splinter lay bare and white, and emitted the characteristic note of dead bone. But on the eighteenth day the note emitted was perceptibly duller than formerly, this being so peculiar that it was remarked at the time. On the nineteenth day, besides the note being more soft, one or two drops of serous exudation appeared like beads of perspiration on the formerly dry surface. Next day the whole surface was covered with a serous dew, each bead being about the size of a pin's head; and on this occasion, when these were wiped off, fresh beads reappeared at several points in the course of about fifteen minutes, welling out from the bone. On the twenty-first day of treatment in the hospital, the twenty-fifth after the injury, a faint pinkish colour appeared here and there in isolated spots on the surface of the splinter, each spot being made up of a group of minute points, the smallest being scarcely discernible to the naked eye, the largest about the size of a small pin's head. Two of these groups were situated towards the centre of the splinter. I construed this as the very first indication of a separative process, the precursor of granulations sprouting up from the surface of the living bone underneath, and thus shedding a superficial dead layer. Next day, however, I found the whole of the exposed surface of a delicate pinkish hue, as if the bone had been injected,[1] *and no appearance of granulations and no flakes of dead bone.* The discharge at this time was very small, and it was thoroughly examined for bone débris, but none was seen. The splinter now emitted a dull soft note to the probe, and it resembled at this stage the appearance of young bone. In the course of a few days afterwards the granulations began to spread, and in eight days they covered the whole bone, and cicatrisation proceeded rapidly. In eight weeks the wounds were cicatrised. He was kept under observation for a month after, the wounds remaining healed and firm; and at the end of that time he could walk with the aid of a stick. The astragalus seemed fixed to the tibia, but there was still considerable movement in the rest of the foot. Six months afterwards he visited the wards to report himself; he then could walk easily, and he stated that he had enjoyed good health since his dismissal.

Remarks.—Many who practise antiseptic surgery state that, in such a case, after eighty-six hours' exposure of the wounds, and after they have commenced to be fetid, antiseptics are no longer suitable, and they repudiate their employment. I maintain the contrary, not merely theoretically, but from the results of practice. I do not, however, state that, in any such case, the rendering of the wounds antiseptic can be guaranteed in the same way as can be done in a freshly-made wound. If a wound is fetid that fetor may be corrected, and the wound rendered aseptic by thorough and repeated application of a germicide, and the scraping of the sinuses or wounds with Volkmann's spoons. If these endeavours are successful, the wound will be reduced to the state of one inflicted a few hours prior to the dressing, *plus* the inflammatory action set up by the septic conditions and the strong corrective solution employed, the inflammation subsiding as soon as the irritation has been removed. In these remarks I refer solely to the local lesion, and cases are excluded in which the blood has become septic. It was by acting according to this opinion that antiseptics were persisted in in this almost hopeless case, and the attempt was highly successful, the wounds in a short time being rendered sweet and pure.

I beg to call special attention to the pathological phenomena connected with the vitality of the splinter of the distal extremity of the tibia. Here there is a portion of bone completely dissevered from its osseous connexions, and only retained in its position by narrow strips of periosteum, which run up as bridges on two sides of the oblique splinter, the periosteum having nowhere a hold of more than an eighth of an inch along these borders, and leaving two and a half inches by one in breadth of the internal aspect of the splinter denuded of its periosteum, and its surface scraped and furrowed. This surface, being superficial, was seen to be white and blanched, and emitted a clear ring to the probe during a period of about eight days (from the tenth to the eighteenth). On the eighteenth day the note elicited by the probe was somewhat duller, the change in note being detected and commented on before any other alteration was apparent. On the nineteenth and twentieth days, a serous

[1] I have since seen the same injected pinkish appearance on the outer surface of a splinter of bone newly detached from the head of the tibia, in a man who had met with a railway accident; the tibia being crushed and bathed in blood.

dew was seen to exude from the bone; then on the twenty-first and twenty-second days the osseous surface became injected as it were, and vascular. Some days after granulations covered the surface, and in a short time cicatrisation followed. The discharge during this time was repeatedly examined, microscopically and otherwise, and no fragments of dead bone were detected.

These are the facts, and, before commenting on them, I wish to state them thus clearly so that anyone may form deductions for himself. In order that these facts may be estimated at their proper value, I may state that I am quite conversant with the appearance of granulations sprouting from the deeper layers of bone, and either shedding an external dead portion or absorbing it. I have seen both of these processes at work in various parts of the body, and many times in the external table of the skull, but the above phenomena were entirely different, inasmuch as there were no granulations sprouting from the interior, the bone becoming vascular instead; the granulations which afterwards covered the bone were superficial, and did not extend from the interior of the bone.

The question then presents itself, Was this splinter of bone dead? In answer to this there is, on the one hand, the probe indication of dead bone during a period of about ten days, the surface, denuded of its periosteum, lying white and dry, all indications by which dead bone is recognised; on the other, the fact that there was no shedding of bone, and such a large surface could hardly be absorbed in so short a time; besides the return of vascularity and final indications of life exhibited in its union with the tibia, its enclosure in the tissues and evident incorporation with them. Taking these latter facts prominently into consideration, it is probable that a physical state was present closely resembling that of dead bone; yet the molecular vitality, though at a low ebb, was still passively retained until its vascular connexions were re-established and it became resuscitated. Is it likely that a sufficient blood-supply could be furnished from the narrow strips of periosteum attached to the splinter? It seems much more probable that the narrow strips were assisted from the slight movement necessitated by the dressing, which caused each time a little blood to escape externally, and probably a blood-clot formed between the fragment and the tibia. This effused blood, besides remaining between the splinter and the tibia, would probably pour itself into the cancellated tissue of the splinter. The clot thus formed, being kept antiseptic, would become vascular, the minute vessels extending into the cancellated tissue, as far as the blood had reached, and so the vitality of the bone would become re-established. The same thing would happen at the point where the fragment was removed from the inner malleolus, and this would form an additional source of blood-supply.

In order to adopt this view, it is necessary to establish whether blood could be effused into the cancellated tissue. It must be premised that there is considerable variety in the density of the cancellated tissue of the same part in different persons. When the bone has been bruised or fractured, the cancellated tissue is much broken up, and rendered more open than in its normal condition. In one specimen of a splinter of the extremity of the tibia, detached by a railway accident, the cancellated tissue was greatly broken up, and wide gaps were left in it, which were filled with clot, blood having also been effused into the recesses of the cancellated tissue. After removal of the clot by steeping and washing, the cancellated tissue was found in the form of a loose network, into which blood could permeate like a sponge. In performing osteotomy I have seen the same thing in portions of bone removed from the distal extremity of the femur; the wedge-shaped portion of bone, consisting principally of cancellated tissue, was seen on removal to be saturated with blood. These, among other facts of a similar kind, seem to me to be sufficient to establish the probability of the occurrence. This appears to me to be the explanation of the phenomena—phenomena, as far as I am aware, not previously recorded, unless the preliminary portion of Billroth's description of development of granulations in bone be so construed. Let the explanation be what it may, practically the fact points out that under antiseptic conditions we should have more hope in leaving a splinter of bone almost detached from its connexions, with the prospect of recovery; and, further, we should consider the possibility of a portion of bone entirely detached, yet retaining its vitality, if surrounded by an antiseptic clot which underwent transformation into living tissue.

Glasgow.

CASE OF SCROTAL HERNIA OF TEN YEARS' STANDING; SYMPTOMS OF STRANGULATION; AUTO-REDUCTION EN MASSE; OPERATION; RECOVERY.

BY GEO. JACKSON, F.R.C.S. ENG. (EXAM.),

(*Notes by* M. J. MACCARTHY, M.D.)

T. R——, aged fifty-one years, a fisherman, engaged principally in trawling, which involves very heavy work, working at the winch, &c. Is a strong, healthy man, and of sober habits. Has suffered for the last ten years from hernia, for which he has always worn a truss. If the truss was removed the hernia would always descend, even when lying down. In fact, according to his own statement, he could not stir without a truss. He could always return the hernia himself.

When first seen on July 14th, 1875, the patient had been suffering for three days with constant vomiting; the bowels had been constipated, some purgatives he had taken having had no effect; the vomit appears to have consisted mainly of bile. The hernia when first seen was in the scrotum, and was not reducible by the taxis. Injections of soapy water were ordered, which had the effect of bringing away hardened fæces from below the point of strangulation, but the hernia remained as it was. At a subsequent visit it was found that the vomiting had not ceased in the least, and the matter thrown up was described by his wife as of a most offensive character, and greatly resembling that passed in the stool. On examining the hernia it was found that the patient himself had entirely reduced the old hernia. I could follow the hernia through the external abdominal ring, and partly through the inguinal canal. Here, however, no impulse could be felt on the patient coughing. In addition to the old hernia, a tense swelling could be felt and perceived, further from the central line than the original one, and in the situation of the internal ring. Here an impulse could be felt on coughing. This was evidently a new feature in the case (and as the patient himself described it, on our remarking, it was a "new comer"). As the symptoms had not abated up to this after the auto-reduction, the opinion to which I then came, and which was coincided in by the other surgeons in the subsequent consultation, was that the patient in reducing the hernia *en masse* had in some way caused a part of the intestine to be further strangulated, so as to account for the secondary protrusion already described.

The symptoms—namely, stercoraceous vomiting, which was also pump-like in its character—continuing, I called into consultation Mr. Fox (surgeon to the South Devon and East Cornwall Hospital), Messrs. Stephens, and Edlin. It was the unanimous opinion of all that operation for strangulated hernia was the only chance of saving life, though all regarded recovery after the operation (even were it successful in finding out the exact point of strangulation) as improbable.

The usual rules for the operation were followed. The sac was opened, which lay in the inguinal canal, and the tense portion of the intestine protruded was examined. This did not yield to pressure from the finger, nor did it give rise to any gurgling sound on such pressure. After clearing it somewhat, I attempted to pass it through the canal, but found a decided resistance offered to its passage; and on passing up the finger I surmised that this obstruction occurred at the internal ring. After several attempts to return it, and after clearing the surface of the tube as far as possible, I was obliged to relinquish this attempt, though I had, with the object of doing so, cut through the major part of the external wall of the inguinal canal. With some slight delay a portion of the small intestine was brought down, which was greatly dilated, and evidently constricted at some point, as this portion of the tube was equal in diameter to that of the large intestine. After some difficulty and delay, and after the clearing away of cellular tissue &c., I fortunately discovered a band stretching transversely across the intestine. On severing this, the inflated portion of the tube at once collapsed, and I was enabled to return the intestines without much difficulty through the internal ring. I then

carefully replaced the structures, and closed the incision by means of wire sutures, over which was placed cotton wool steeped in carbolic oil and bound down by plaster and covered by a pad, the whole being included by a spica bandage. I also at once ordered him an opium pill (1½ gr.) every four hours.

July 15th.—11 A.M.: Patient on the whole progressing favourably, although considerably exhausted. Slight tenderness over left inguinal region, intensified by pressure. The bowels have acted, vomiting having ceased. Pulse 80; temperature 100°F. Complains of thirst.—8.30 P.M.: Pulse 88; temperature 100·6°; respiration 25. Is in a state of partial stupor, from the effects of opium probably, pupils being contracted. Ordered to take the opium pills every six instead of every four hours. Is restless, and complains of tenderness in left inguinal region.

16th.—12 A.M.: Pulse 80; respiration 24; temperature 100°. Respiration short and somewhat difficult; evidence of hypostatic congestion of bases of lung was found; bowels rather relaxed. Ordered brandy, egg, and milk mixture in half-ounce doses, every hour, and half an ounce of the following mixture to be taken every four hours: Carbolic glycerine, two drachms; tincture of opium, one drachm; disulphate of quinine, fifteen grains; dilute sulphuric acid, one drachm; water to six ounces.—9 P.M.: Patient much exhausted; has taken but little nourishment. Pulse 100; respiration 30. Ordered turpentine fomentations to the back.

The subsequent progress of the case does not call for much comment; the recovery was somewhat tedious, but not complicated by any bowel mischief or peritonitis. Slight erysipelas took place about the wound, and a small abscess formed. For some months after the healing of the wound there was no tendency to hernial protrusion, although the inguinal canal had been so freely laid open; subsequently, however, owing to the laborious character of the employment of the patient, a considerable protrusion took place in the site of the cicatrix.

Remarks.—I believe this to have been a case similar to that described by Birkett in his article on Hernia, in Holmes's System of Surgery, a rent having probably taken place in the posterior wall of the sac, through which the intestine escaped into the subserous areolar tissue, the sac itself being found lying in the inguinal canal, the constricting part being formed by the neck of the sac itself. That the intestine was in the subserous areolar tissue, and not pushed back into the abdomen, was quite clear, as it was impossible to return the intestine, without using undue force, previous to the drawing down of the intestine and the division of the constricting band.

ON POST-PARTUM ILLNESS IN GENERAL, AND PELVIC CELLULITIS IN PARTICULAR.

BY GEORGE ROPER, M.D., M.R.C.P.,
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(Concluded from p. 865.)

IT may be expected that something should be said respecting the contagion or the communicability of childbed diseases. I will speak on this subject under two heads—(1) the communication by inoculation, or local contamination (if I may use such a word)—i.e., the conveyance or application, to a healthy woman, of the morbid material derived from a woman in a state of puerperal disease; (2) the communication in a much less intelligible way of a kind of fever subtile in all its phases and operations, resembling, in most respects, the class of zymotic disease.

(1) Concerning the communication by the coarse mode of inoculation, evidence on this point is so abundant as to render it an indubitable fact. That morbid secretions of a woman in a state of puerperal disease conveyed to the wounded structures of a healthy parturent should produce a morbid action somewhat similar, is what scientific knowledge would predict. These morbid secretions are, for the most part, the result of an inflammatory process; they are certainly not ordinarily the mere natural secretions, but, I repeat, the result of an inflammatory process. The morbid secretion may be simply pus, which will excite common inflammation, or it may be some secretion more highly elaborated, so as to possess more virulent properties. Take, for example, the pus of erysipelatous inflammation, and mark its virulence and acridity as compared with the pus of common phlegmon. That these morbid secretions are conveyed by the hand of the accoucheur from the unhealthy to the healthy subject, and thus propagate disease, there cannot be a doubt. On this point I can hardly do better than quote the remarks of a great authority on inflammation, Mr. Simon[1]: "That in various cases inflammation arises as the effect of direct contagion." And in speaking of "specific" inflammation, he says: "It may on good grounds be asked, with regard to gonorrhœa, whether it be anything more than a common inflammation, which, perhaps, originated, and may with infinite frequency so originate, from local accidents of dirt and lust, and which, having thus originated, shows a more communicable character than some other catarrhal inflammations, than common cold in the head, for instance, only because the genitals come into inoculative contact more frequently than eyes and noses. In the writer's opinion there is ample reason to question the popular impression that only 'specific' inflammations are communicable; much reason for suspecting it, on the contrary, to be a generic and essential property of inflammation that its actions (or some of them) are always to some extent contagious." It will already have been observed that my views of post-partum illness tend towards traumatism; that the various wounds or bruises which occur in labour become inflamed, whether by the influence of an inoculable material imported from without or generated within the patient's own body, or whether as a simple excess of action in the healing process, unexcited by any foreign irritant. Again Mr. Simon says: "Practically, the affection (inflammation) shows numberless grades and differences and complications. First, there are wide differences of degree and duration; for in proportion as the local process is less acute and less extensive, there is less attendant febrility; and in proportion as the local process has to invade fewer successive strata or textures the fever is of shorter course: on the one hand, it may be so slight as readily to escape notice, and may end within a few hours of its commencement; and, on the other hand, it may last in full force during many successive days, and may be so severe as to shake the patient's life to its foundation. And besides these differences, there are varieties of result, sometimes from complicative local conditions, sometimes from peculiar susceptibilities of the patient. If the wound become the seat of some large textural disorganisation with consequent soakage of putrefying material, signs of blood-pollution may be expected to mix with or supersede those of common inflammatory fever. The patient's state will then generally incline to be one of depression and apathy, his tongue will be more than commonly foul and fetid; diarrhœa will probably exist. Or perchance, during the local process, it happens that pus passes up a vein into the great stream of blood; the patient's improvement is abruptly cut short by severe recurrent rigors and sweatings of pyæmia, accompanied by local signs of secondary suppuration in other parts to which the pus is conveyed." These remarks of Mr. Simon so thoroughly accord with my own observations of the severer forms of childbed illness that I have never felt it necessary to fall back on the existence of a specific idiopathic fever analogous to one of zymotic character. There has always been a local cause, and the fever could only be regarded as one of a sympathetic kind, dependent in all its variations on this local cause. Here is what the late Mr. Campbell de Morgan says on erysipelas[2]:—"But the question of the identity in nature of erysipelas proper with many internal inflammations, which has been before alluded to, is one of even greater importance. At the present day, little doubt is entertained by British surgeons of the connexion, if not the identity, of this disease with puerperal fever. They both arise under the same circumstances, and the instances of their coexistence in the same patient, and of the tendency which each seems to possess to excite the other, are so numerous that it is next to impossible to resist the conclusion that puerperal fever is but an internal manifestation of erysipelas." It will be observed that he speaks of two diseases—erysipelas and puerperal

[1] Article "Inflammation," Holmes's System of Surgery.
[2] Holmes's System of Surgery.

fever—and then calls them identical. That is somewhat paradoxical; but the interpretation, according to my own views, is, that they are not two distinct diseases, but that the so-called puerperal fever is the symptomatic fever of an erysipelatous inflammation of traumatic origin. I think it not necessary to discuss the inoculation of the puerperal wounds by morbid material generated within the patient's own body; the result will be much the same whatever the source of the inoculating matter. Nor is it necessary to discuss the absorption of the same agents through the sound, unbroken lining of the parturient canal. Even admitting this to be occasionally the case, a local inflammation is, in all probability, produced.

(2) Concerning the communication of a fever by way of contagion or infection after the manner in which the zymotic diseases are produced or propagated, I am from clinical observation unacquainted with any such fever as to this mode of origin, or even as to its existence. It is due to some authorities, and to Dr. Braxton Hicks in particular, to mention the great importance which is attached to the influence of the zymotic fevers, scarlatina especially, in originating post-partum fever, but I think a careful perusal of his paper on Puerperal Diseases[3] will lead to the conclusion that the large proportion of cases of scarlatina which he has seen as constituting puerperal diseases, were pure scarlatina in the puerperal state, as clearly as if such cases had occurred in the non-puerperal state. With regard to a large number of his cases of puerperal diseases attributable to the influence of scarlatina, "but which were not scarlatina in its perfect development," but which he claims as being produced by the influence of scarlatina, there is a singular absence of record of vaginal examination, and in a large number of these cases there was a complaint of pelvic pain. It would be idle to assert, however, that a puerperal woman in the midst of those suffering from scarlatina is not placed at a great hygienic disadvantage; her surroundings must be detrimental to health, and act as predisposing causes, and facilitate the invasion of any kind of disease. It is difficult to understand whether he believes in the transmutation of scarlatina by the puerperal state into a fever—a puerperal fever *sui generis*—or whether this scarlatina is modified by the puerperal state so as not to be recognisable as scarlatina, though it is truly so in its nature. I shall not here go into the question as to how far the puerperal state proper, in a woman otherwise in a state of perfect health, acts as a predisposing cause, rendering her system prone to take on morbid action. Traditionally we believe it is so, and to express a contrary opinion would be simple heresy. But looking to the terrible ordeal some women go through in obstetric surgery, the serious accidents which happen to women far advanced in pregnancy, and the capital operations which have been performed on them successfully when in this condition, it cannot be said that their reparative powers are much diminished; and considering that pregnancy, puerperation, and lactation are the normal conditions of the great mass of women throughout twenty or twenty-five years of their life, and that as mothers they are frequently exposed with impunity to the influences of the zymotic diseases which so constantly occur in their families, the question suggests itself whether the physiological activity described by Dr. Barnes as existing in these women does not have a protecting or fortifying effect on their constitutions.

I have said so much on post-partum illness in general that I fear I shall have but little time to speak of cellulitis in particular. In my experience, this is one of the most frequent illnesses after delivery. Most of the other diseases soon get well or are speedily fatal; but cellulitis, in some cases, I mean the acute form, is very protracted, and is a source of the greatest trouble and anxiety to patient, friends, and medical attendant. I refer chiefly to those cases which go on to suppuration; they last six weeks or two or three months without any signs of amendment, and without any probability of the abscess discharging itself, when, after this long time, it bursts into the vagina, rectum, bladder, or at the inguinal or femoral ring, or at some other part. There is one form of cellulitis which is very perplexing, and where for a long time diagnosis cannot be certain—that is, when situated in either iliac fossa. It is probably lymphangitic in its origin, arising from a fissure of the perineum or of one edge of the ostium vaginæ, and from one of these lesions a lymphatic duct becomes inflamed, the inflammation running up to an iliac or lumbar gland. Vaginal examination discovers but little or nothing amiss with connective tissue of the true pelvis; upward pressure of the uterus gives pain on one side, palpation in the iliac region of the affected side detects no induration; there is tension over this part of the abdominal muscles, but no dulness on percussion nor any other objective sign. I have lately had two such cases under my care. After three months of severe illness, in one case the abscess pointed in the lumbar region, above the posterior iliac spine, and at the same time at the femoral ring; it discharged at the latter place, when the former swelling entirely subsided. The other, after the same long time, discharged into the rectum. In these cases, long before any objective signs of abscess could be detected, there were peculiar signs of great diagnostic value, examples of which have been so admirably described by Mr. Hilton.[4] These women, at a very early stage of their illness, complained of pain of the acutest kind over the trochanter major and down the outside of the thigh as far as the knee. They felt sure the disease was in the thigh-bone, and they always described the pain as if the bone were being scraped. This area of pain points to the area of distribution of the external cutaneous nerve from the lumbar plexus, the trunk of which perforates the psoas muscle. Here was the focus of the inflammation in its earliest commencement, and hence the pain referred to its terminal branches. There is another symptom peculiar to cellulitis in the iliac fossa, at which the patient is greatly concerned. The thigh becomes strongly flexed on the abdomen. Whether this occurs at first as a voluntary act on the part of the patient to relax the psoas and iliacus muscles, or whether it be a reflex act, is uncertain. In either case it is an example of a limb thrown into a certain position, the effect of which is to put these muscles in a state of relaxation and rest, and thus secure the inflamed part free from muscular movement. I mention this symptom because it is one which greatly distresses the patient through a fear that the limb will be permanently fixed and crippled.

I have but little to say about treatment of post-partum illnesses. They are (such as I have described) almost always accompanied with great pain, and one of the chief indications is to relieve this. I give opium largely, a drachm of the tincture every three, four, or five hours, till the pain is relieved, watchfully keeping the patient under its influence. This, of course, is in the early stage of inflammation. As a fever mixture, chlorate of potash, hydrochloric acid, with chloric ether; after a time, where there is a tendency to blood-poisoning, quinine in considerable doses, sometimes perchloride of iron with hydrochloric acid. I have never practised depletion, but have always adopted a supporting treatment—good beef-tea or mutton broth, milk and eggs,—with the early use of stimulants, generally moderately given, sometimes more liberally; warm poultices to the lower part of the abdomen, or hot turpentine stupes; when the discharges are putrescent, washing out with warm water, to which is added carbolic acid, Condy's fluid, or tincture of iodine. I need not say that great importance is attached to the immediate removal of all clothing stained with the discharges, scrupulous attention to cleanliness, the removal of all superfluous bed furniture, and the free access of fresh air.

I have to regret that these remarks have been hastily put together, that they are fragmentary and unsystematic. I have not consulted the opinions of a long list of authorities, or attempted an exhaustive treatment of the subject. That would be impossible in such a paper. With a strict desire to avoid being egotistic, I have simply written my own thoughts and observations entirely from a clinical point of view.

[3] Obstetrical Transactions, vol. xii

[4] Lectures on Rest and Pain, edited by Mr. Jacobson.

DUBLIN SANITARY ASSOCIATION.—The annual general meeting of this Association was held last week in Dublin, presided over by Lord James Butler. The Association now numbers 264 members. During the past year seventy-two distinct nuisances were reported to the Public Health Committee of the Corporation and other sanitary authorities. In reference to the present epidemic of small-pox, the report stated that, besides neglected vaccination, there were other causes for the prevalence of small-pox, which did not require any new enactment for their removal—viz., the disgraceful sanitary state of the city, as evinced by the high death-rate; and the want of proper sanitary organisation and supervision, of proper means of removing infected persons to hospital, and of epidemic hospital accommodation.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CRUSHED LEG; AMPUTATION; PYÆMIA; HIGH TEMPERATURE, LOWERED BY ICED-WATER BED; SUPPURATING EYEBALLS; DEATH.

(Under the care of Mr. T. BRYANT.)

THE eyeball is not often affected in ordinary cases of pyæmia, but in puerperal pyæmia it occasionally becomes the seat of suppurative inflammation.

The following notes were taken by Mr. C. L. Jones.

W. H. N——, a railway porter, aged forty-seven, was admitted into the accident ward on April 27th, 1877. His left foot had been terribly crushed and lacerated, and the tibia and fibula comminuted. The upper ends of the broken bones protruded. While engaged in shunting, an engine knocked him down, and the wheel passed over his left leg.

He was at once put under the influence of chloroform, and the left leg was amputated about the middle by a modified circular operation, a vertical incision upwards being added posteriorly to a circular incision. When all the bleeding vessels had been twisted, the edges of the wound were drawn over the ends of the divided bones and fixed by sutures. Esmarch's bandage was used throughout the operation, and the limb was placed on a posterior splint. Next day he complained of much pain. Pulse was 132; temperature 100·4°.

On May 1st the man seemed much better, and was able to eat a good fish dinner. Pulse 108; temperature 99·5°.

On the following day there was no pain in the leg, but the respiration was rather laboured. The flaps looked well, and there was not much discharge. Twenty grains of salicylate of soda were given every four hours in peppermint water.

On the 3rd, temperature 101·6°; pulse 104. The flaps had sloughed a little, and the single remaining suture, which seemed to cause tension, was removed. He was delirious on the night of the 5th, and although the delirium subsided and he became rational, his intelligence was still somewhat impaired on the 7th. The flaps had retracted so as to give the stump the appearance of an ordinary circular amputation.

On the 8th the patient had a shivering fit during the morning. Temperature at 11.45 A.M., 105·4°. He was ordered two ounces of brandy and five grains of sulphate of quinine in camphor water every four hours, the first dose being given at noon. He was bathed with sweat. His mouth was covered with sordes, but he took nourishment freely. There was some pain in the right shoulder. Urine, specific gravity 1015, and contained a small amount of albumen.

On the 9th he was much in the same state; perspired greatly. Temperature 101·7°; pulse 108. He complained of dimness of sight.

On the 10th his eyes seemed to be suppurating, and blebs appeared on his hands and arms, which contained pus. There was much prostration, but not so much sweating. The quinine was continued, and he took thirty grains in twenty-four hours. Temperature at 11.30 A.M., 101·4°; pulse 120, very weak. His tongue was very dry, and covered with a thick brownish fur.

On the 11th temperature 103°; pulse 132, fuller. The eyes seemed disorganising fast, and he lay in a semi-conscious condition, but was capable of being roused, and he answered rationally. There was some slight tonic spasm of the muscles of the face on both sides, especially in the corrugator supercilii. He stated that he had pain in both knees, but nothing could be seen or felt in them. He still took plenty of nourishment. The stumps were granulating, and were apparently healthy.

On the 12th the temperature was 104·5°; pulse 123. He lay in a low, muttering delirious state, his fingers constantly moving and picking at the bedclothes. Since the 8th he had had no command over the sphincters. He was ordered to be placed on a water-bed filled with ice and water. At 5.15 P.M. he was placed on the bed for the first time; temperature 104·5°. 5.25, temperature 102·3°; 5.30, 101·2°. At 5.45 he was removed from bed; 100·5°. At 6.30, 100·3°; at 8.45, 103°. At 11, 103·8°; he was again placed on bed. 11.40, 102·2°. At 12.5 A.M. (13th) temperature 100·1°; removed from bed. At 3.30, 103°; placed on bed. At 4.0, 101·6°; at 4.30, 100·2°; removed from bed. At 10.30, 103·4°; at 1.15 P.M., 104·4°; placed on bed. At 1.40, 101·8°; at 1.50, 101°; at 1.55, 102°; removed from bed. At 3.10, 101·2°; at 4.30, 103°; at 5.10, 103·6°; placed on bed. At 5.50, 101·2°; at 6.5, 100°; removed from bed. At 11.30, 103·5°; placed on bed.

At 12.5 A.M. (14th), temperature 101·6°; 12.30, 100°; removed from bed. He died at 9 A.M.

No benefit could be seen from the application of the cold bed.

Necropsy.—The left femoral vein was obstructed by a clot about Poupart's ligament, and the vein below was full of pus. Pus was present in both shoulder-joints, and in one of the costo-sternal joints of the left side. The skin was covered with an eruption of pustules. In the eyes the vitreous was purulent, and there was pus apparently in and between the choroid and retina on both sides. Lungs, liver, kidneys, brain, &c., healthy.

WEST LONDON HOSPITAL.

STONE IN THE BLADDER OF A MAN SUFFERING FROM ALBUMINURIA; CHRONIC BRONCHITIS; STRICTURE OF THE URETHRA AND VESICAL ATONY; LITHOTRITY COMBINED WITH MEDIAN LITHOTOMY AT ONE SITTING; GOOD RESULT.

(Under the care of Mr. TEEVAN.)

THE proposal to combine lithotrity with median lithotomy is novel and ingenious, and promises to extend greatly the applicability of the crushing operation to cases of stone in the bladder.

George H——, a coachman, sixty-six years of age, was admitted into the hospital on January 15th, 1878. He stated that he had for twenty years suffered from stricture of the urethra, the result of a gleet, and that he could pass but little urine without frequently introducing a No. 5 English catheter every day. About eight years ago he commenced to experience pain at the tip of the penis when driving, and latterly he had been obliged to give up his place on account of the pain he suffered, and the frequency with which he was troubled to urinate. For some time past his urine had been "very bad," and smelt offensive. The patient was born at Ludlow; his father was a native of Shropshire, and his mother of Radnorshire. There was no history of stone in his family, but he had suffered from gout and rheumatism.

When admitted he was troubled severely with chronic bronchitis. His urine, when examined by Mr. Lucas, the house-surgeon, was found to contain phosphates and much albumen; its specific gravity was 1020. The stricture was situated in the subpubic region, immediately behind the perineum, and was an inch and a half long. The patient was put under the care of Dr. Thorowgood, who, on Feb. 17th, reported that he was well enough to be treated surgically. The same day Mr. Teevan tied a No. 10 (Charrière) olivary catheter in the patient's bladder, and left it in for six hours only, as it was causing pain. On the following day it was reintroduced, and kept in for four hours, and on the next day for three hours. The result of the continuous dilatation was that No. 18 olivary catheter could be passed with ease. On Feb. 25th Mr. Teevan introduced a lithotrite, and measured the stone, which he found to be single, hard, one inch in one diameter, and a shade less in the other. Much improvement locally followed the examination, for the man passed a better stream of urine, and had not to use his catheter so often. On Feb. 28th the patient was attacked with gout in his left great toe, for which he was treated by Dr. M. Fothergill. On March 18th Mr. Mortimer, the house-surgeon, reported that the gout had disappeared, that the patient was very anxious to be operated upon on account of the pain from which he was suffering, that his appetite was good, and the secretions free. The urine was alkaline, sp. gr. 1020, and was one-third albumen.

On March 19th, at 3 P.M., the patient having mounted the operating table unassisted, Mr. Teevan introduced a slender

lithotrite, and in the course of a few minutes broke up the stone, which was composed of oxalate of lime, into small fragments. Chloroform was now administered to the patient by Mr. T. G. Alderton, in preference to ether, on account of the bronchitis. Mr. Teevan then passed a rectangular catheter staff, and handed it to Mr. Alfred Cooper to hold. An incision was made into the perineal urethra in the median line, and the stricture completely divided. The left forefinger was gently insinuated into the bladder, a slender urethral forceps introduced, and the fragments of stone extracted one by one. The bladder was then washed out, and a piece of lint dipped in carbolic acid inserted in the wound. At 8 P.M., when Mr. Brown, the house-surgeon, visited the patient, he found him comfortable; pulse 88; temperature 99°. The piece of lint was removed, in order to facilitate the patient's passing water, which he did after exerting a considerable effort. Half an hour later a severe rigor took place. Temperature 100·6°; pulse 85. Ten grains of quinine were at once administered.

20th.—Has slept pretty well, and is free from pain. Pulse 90; temperature 100°.

23rd.—Complains of pain across the chest; respiration rather laboured; coarse, loud râles at base; tongue coated and somewhat dry. Temperature 100·8°; pulse 92, soft, jerky, and intermittent.

24th.—Has slept well, and takes food freely; is taking brandy; respiration laboured; tongue coated, but moist. Temperature 99·4°; pulse 64, intermittent, soft, and irregular.—10 P.M.: Pulse fuller and stronger; slight muttering delirium.

26th.—Much better; passes urine equally by the wound and the penis.

April 1st.—Much stronger; wound fast closing.

7th.—Gets up for a few hours each day; most of the urine comes by the penis. No. 18 soft olivary catheter was passed into the bladder with ease.

15th.—Patient much improved in health; wound nearly healed; all urine comes by the penis. No. 20 olivary catheter passed.

17th.—Left hospital to-day.

25th.—Wound quite closed. Takes a walk every day.

June 1st.—Patient still improving; is fit for any light work. Since the operation the bladder has regained much tone, and whereas formerly he could make but little water without the catheter, he now uses it but once a day in order to completely empty his bladder. The urine still contains a considerable amount of albumen.

Mr. Teevan remarked that the case was full of interest, and probably unique. Lithotrity at one sitting had been performed by Bigelow, perineal lithotrity by Dolbeau, Gouley, and Henry Lee, and lithotomy had occasionally been executed some days or weeks after lithotrity, as a matter of necessity not previously contemplated; but the special combination which he had effected in the present instance of designedly reducing the entire stone to small fragments at one sitting "per penem," and then immediately extracting them through a median perineal incision, was, he believed, quite novel. The objections to perineal lithotrity were the time required to perform the operation, and the risk encountered in manipulating a lithotrite in a bladder which had been completely emptied of urine by the median incision in the perineum through which the instrument was introduced. Median lithotomy *per se* was only applicable for the removal of very small stones, such, indeed, as the fragments of a calculus which had been completely crushed. No surgeon would, he thought, have performed lithotrity pure and simple in the present instance, complicated as it was by stricture of the urethra and atony of the bladder. Many operators would have done lateral lithotomy, and not a few would probably have declined all interference. As, however, the man was suffering much pain, and wished to be relieved, it would have been cruel to have left him to die unrelieved. But what operation should he undertake? Lithotrity by itself was out of the question, and lateral lithotomy would, in all probability, have been followed by a fatal issue, considering the complicated nature of the case. It occurred to Mr. Teevan that if a lithotomy could be reduced to a mere external urethrotomy, the patient's chances of recovery would be greatly increased, for statistics went to show that lithotomy in adults was ten times more fatal than external urethrotomy. Now, this desirable result could only be effected by employing lithotrity to break up the stone into fragments small enough to be extracted through a perineal incision without cutting or lacerating the neck of the bladder. It was, moreover, necessary that, whatever the operation proposed, the stone should be removed at one sitting, for if the fragments were not extracted for some days after they had been formed, it was clear that the patient's cystitis would be greatly aggravated, even to the destruction of life, as the bladder would be unable to eject the pieces. He had accordingly applied the combined operations as described with the happiest result, and he considered there were many cases that would be best dealt with by such combination. One great advantage offered by the median incision in the present case was that it not only offered a free vent for the extraction of the fragments and the escape of any débris that might be left, but that it permitted the stricture, which had caused the atony of the bladder, to be divided. It was also to be remarked that the patient did not wet his bed after the operation, but had, on the contrary, to exercise a considerable effort to enable his weakened bladder to overcome the power of the sphincter.

NEWPORT (MON.) INFIRMARY.

PUNCTURED WOUND OF THE ABDOMEN, WITH PROTRUSION OF A LARGE AMOUNT OF SMALL INTESTINE, FOLLOWED BY TRAUMATIC DELIRIUM AND ERYSIPELAS; RECOVERY.

(Under the care of Dr. DAVIES.)

FOR the following notes we are indebted to Mr. O. E. Bulwer Marsh, house-surgeon.

M. B——, a married man aged twenty-four years, labourer at the docks, was admitted at 12.30 on the morning of the 9th of March. He had been stabbed in the abdomen with a clasp-knife by one of his comrades. The wound had been inflicted about two hours before.

On admission a large mass of small intestine and mesentery protruded from a wound in the left side of the abdomen, midway between the last rib and the crest of the ilium, and on a line with the umbilicus. The parts were so intensely tender and painful that the patient could not bear an examination without chloroform, which he took well. It was then found that the wound was vertical and about an inch long, and through it protruded four coils of small intestine attached to the mesentery, each coil being about eight inches long. The intestine itself was not injured, but it was a good deal congested, and so tightly constricted at the opening that it was found impossible to return it into the abdominal cavity. The wound was therefore enlarged with a director and blunt-ended bistoury to about two inches and a half long, and the protruded mass was then easily reduced. The wound was brought together by two harelip pins, which were passed through the whole thickness of the abdominal wall, and between these two interrupted horsehair sutures were put in. A thick pad of lint dipped in tincture of benzoin was put over the wound, a broad bandage applied, and the patient put to bed and ordered one grain of opium every three hours. The pulse remained good after the operation. At 9 A.M. the pulse was 99 and the temperature 101°. The face was very flushed. He vomited once soon after he was put to bed, but otherwise he had passed a tolerably good night. The pupils were contracted, but acted. He was very drowsy. The abdomen was not swelled or tender, except just over the wounded part. Ordered ice and milk; the opium to be continued every four hours. The wife stated he had been a very heavy drinker lately, having seldom been quite sober of an evening since Christmas, but otherwise he had always been a healthy man.—9 P.M.: Temperature 101·4°; pulse 100, full and bounding. Tongue very white, but moist. He had vomited five times during the day. The ice and milk continued. Pupils still contracted. Abdomen only tender just over the area of the protruded intestine. No tympanites. The opium now given every six hours.

March 10th.—9 A.M.: Temperature 103°; pulse 102. Passed a quiet night. Tongue still thickly coated and rather tremulous. Has not vomited since yesterday evening. Opium still continued. Drowsiness and contracted pupils still remaining. Abdomen a little swelled, and there is slight tenderness on pressure on left side. Dressings not disturbed. Bowels have not acted since admission. Taking milk and ice in very small quantities. Urine, specific gravity 1010, acid and decidedly albuminous.—9 P.M.: Pulse 128, full and bounding; temperature 104°. Abdomen rather tympanitic,

and tenderness somewhat increased on left side. No vomiting. Tongue coated and rather dry and tremulous. No action of bowels. Perspiring rather profusely. Still seems very drowsy from the opium, which is continued at intervals of six hours.

11th.—9 A.M.: Pulse 128; temperature 104·2°. Abdomen more tympanitic and tender than last night; tenderness a great deal more marked on left side. No vomiting or action of bowels. Still sweating profusely. Passed a pretty good night, but talked a good deal in his sleep. Dressings not removed.—9 P.M.: Pulse 120 and softer; temperature 103·4°. Abdomen somewhat more tender, but tympanites not sensibly increased. No vomiting during the day. Complains of extreme thirst, and he is still sweating profusely. Tongue thickly coated and dry. Was ordered an enema of soap and water, with two ounces of castor oil, after which the bowels acted once and he felt easier.

12th.—9 A.M.: Pulse 112 and better in tone; temperature 103·2°. Tongue still furred, and skin perspiring. Abdomen not so tender as yesterday. No vomiting. Bowels have not acted since last night. Did not pass such a good night. Dressings not removed. The opium still continued.—9 P.M.: The soap-and-water and castor-oil enema repeated, after which the bowels were moved slightly once. Temperature 103·6°; pulse 120. Before the enema he complained of crampy pains in abdomen, which were easier afterwards.

13th.—Pulse 120; temperature 103·4°. Tongue very tremulous, and covered with a thick creamy fur. Passed a restless night, and almost sleepless. Constantly trying to get out of bed, and the marked delirium, which came on rather suddenly, is very characteristic. Sweating profusely, and at times very violent. The bowels have not acted since the motion after the last enema. Abdomen not so tender, but round the pad on the left side there is a slight inflammatory blush. On account of the violent delirium it was not thought desirable to remove the dressing. Two nurses are kept constantly with him. The opium left off, and twenty grains of chloral, with twenty grains of bromide of potassium, to be given every two hours.—9 P.M.: Has been extremely restless and talkative all day, constantly trying to get out of bed, but has been restrained by the porter and two nurses. Perspiring profusely; tongue very foul and tremulous; and the breath fetid. The abdomen not more tender or tympanitic; no vomiting. The erysipelatous blush has extended a good deal; dressings not touched. Ordered two ounces of compound senna mixture at 3 P.M., which did not act; so it was repeated at 9 P.M. Pulse 114; temperature 104°. Given as much nourishment as possible in the shape of raw eggs, strong beef-tea, and milk. Chloral still continued.

14th.—9 A.M.: Bowels acted freely after second black draught; had no sleep during the night, the delirium continuing without intermission. Pulse 144; temperature 103°. Ordered thirty drops of tincture of digitalis in an ounce of water every two hours. The chloral discontinued. Abdomen still tympanitic, but not particularly tender. The blush round the wound has not extended; no vomiting; takes his nourishment well.—9 P.M.: Temperature 103·4°; pulse 124, not intermittent, and better in tone. Has taken four doses of digitalis. The delirium has been almost constant all day. Still sweating profusely. Ordered a draught of forty grains of chloral and forty grains of bromide.

15th.—9 A.M.: Temperature 102°; pulse 100 and regular. Slept at intervals during the night; is rational this morning and quiet, but much exhausted; tongue moister and slightly cleaner at edges; bowels acted freely in the night; erysipelas extended over the whole of the lower part of the abdomen, which is extremely tender; urine loaded with lithates, sp. gr. 1025, and slightly albuminous. Digitalis continued every four hours; linseed poultice applied to abdomen, but pad of tincture of benzoin not removed; forty grains each of chloral and bromide given at 11 A.M. — 9 P.M.: Has slept nearly all day. Pulse 108, regular; temperature 102°. To have forty grains of chloral at once.

16th.—9 A.M.: Temperature 102·4°; pulse 102; no signs of intermission; slept nearly all night, and continues quite rational, only wandering slightly at times. Digitalis discontinued, and twenty grains of chloral given three times a day. Bowels acted freely this morning. The whole of abdomen covered by the erysipelatous redness and swelling, which has also extended to penis and scrotum, which parts are intensely red, tender, and œdematous; the tympanites rather diminished. The pad of tincture of benzoin was removed. The upper edge of the wound has united by first intention; from the lower edge, which was open, flowed a large quantity of thin flocculent pus, which was pent up between the abdominal muscles and fascia on the left side. The pins were not removed, as they seemed to create little or no irritation, but the horsehair sutures between them were taken out, so as to allow a free exit for discharge; poultices and fomentations applied over the whole part.—9 P.M.: Temperature 102°; pulse 99. Not in so much pain; wound discharging freely into the poultice; bowels have acted twice during the day. Forty grains of chloral to be given at 11 P.M.

17th.—9 A.M.: Temperature 101°; pulse 106. Slept nearly all night; pain much easier; erysipelatous redness subsiding, and œdema of penis and scrotum a little less; skin moist and tongue cleaner; he is quite rational, and takes his nourishment well. Poultices continued; wound still discharging very freely; urine slightly albuminous. The chloral left off during the day, and tincture of perchloride of iron with infusion of quassia given three times a day.—Evening: Temperature 102·6°; pulse 98. Given forty minims of nepenthe.

18th.—Morning: Slept well; pulse 92; temperature 102·4°. Discharge still profuse. No return of delirium. Abdomen, penis, and scrotum a good deal better. Bowels acted once.—Evening: Temperature 100·4°; pulse 82. Given forty minims of nepenthe.

19th.—Morning: Slept well. Discharge still profuse. Temperature 98·4°; pulse 84. Redness over abdomen and other parts subsiding rapidly.—Evening: Temperature 100·4°; pulse 88. Nepenthe repeated.

20th.—Morning: Temperature 100°; pulse 76. Slept well. Going on favourably.—Evening: Temperature 101°; pulse 86. Urine still slightly albuminous.

21st.—Passed a good night. Pulse 76; temperature 99°. Erysipelatous redness nearly all subsided. Very little discharge. The poultice left off, and the harelip pins removed. Wound firmly united, except for about quarter of an inch in the centre, from which there is a little thin sanious discharge. Water-dressing and carbolised tow applied.

22nd.—Temperature 99°. Slept well all night. Very little discharge from the wound, which looks very well.

23rd.—Temperature and pulse normal. Lower part of abdomen desquamating. Put on meat diet.

24th.—Discharge ceased; wound quite closed. A good deal of inflammatory thickening remains in those parts of the abdominal wall to which the erysipelatous action extended.

28th.—Up, and going on favourably.

April 5th.—Discharged from the infirmary cured. Appeared at the assizes at Monmouth, and gave evidence the same day. The urine continued slightly albuminous when discharged.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Extra-uterine Fœtation.—Dicephalous Monster.—Bicorned Uterus and Vagina.—Myxoma of Ovaries.—Repositors and Midwifery Forceps.—Revolution of Fœtal Head in passing through Contracted Pelvic Brim.

AT the meeting on June 5th (Dr. West, President, in the chair) the following gentlemen were elected Fellows of the Society:—J. D. Buncombe (Beaufort West, Cape Colony), John A. Lycett (Graiseley), John O'Neill, M.D. (Portobello), John A. Rawlings (Swansea), and David Thomson, M.D. (Luton).

The PRESIDENT said that the Fellows would be aware that the Society had recently acquired the valuable library of the late Dr. Blundell, but as they already possessed many of the works thus purchased, the Council thought it advisable to offer the duplicates for sale. He had therefore to announce that a list of such works, with the prices at which they were valued, would be suspended at the Society's library, and Fellows would thus be given such an opportunity as they might seldom find of acquiring valuable works on obstetrics.

Dr. HAYES exhibited the specimen from a case of Extra-uterine Fœtation, of which he had given brief particulars at the last meeting of the Society. The specimen consisted of

the uterus and its appendages, enveloped in a large amount of blood-clot and false membrane. At the fimbriated extremity of one Fallopian tube was a smooth-walled cyst, the rupture of which had, in Dr. Hayes' opinion, led to the symptoms from which the patient died.—In reply to Dr. John Williams, Dr. Hayes stated that a true corpus luteum was found in one of the ovaries.

Dr. WILTSHIRE exhibited, on behalf of Dr. D. C. MACCALLUM, of Montreal, two drawings of a case of Conjoined Twins, which had been brought to Montreal for exhibition in April last. The union between them commenced at the lower part of the thorax of each, below which point they presented the appearance of one female child. Neither the respiration nor the pulses of the children were synchronous, and Dr. MacCallum concluded that their spinal, respiratory, circulatory, and digestive systems were quite distinct.—Dr. WILTSHIRE said that the case resembled one figured and described in M. St. Hilaire's classic work on the subject. A similar case had been recorded by Sir Astley Cooper, and another is said to have occurred in the reign of James IV. of Scotland.

Dr. HERMAN showed a specimen of Bicorned Uterus and Vagina, taken from the body of a woman who had committed suicide. She had borne two children, and nothing had ever been noticed during life to lead to the supposition that there was anything peculiar about her genital organs.

Dr. GALABIN showed microscopical specimens from a case of Myxoma of the Ovaries. The patient, a woman aged twenty-one, had suffered from almost constant hæmorrhage since her marriage three years previously; and when admitted into Guy's Hospital she was so exhausted that transfusion was thought of. The hæmorrhage, however, was checked by the use of a sponge tent, and the subsequent injection of warm water; but the woman died ten days later of suppurative peritonitis. Both ovaries were found enlarged, but retaining their normal shape; and it was at first thought that the enlargement was due to acute inflammation. Microscopical examination, however, showed that the histological characters of the growth were those of myxoma, though the harder portions exhibited the characters of sarcoma. The spleen was leukæmic. The uterine mucous membrane was disintegrated on its surface (as shown in one of the microscopical sections) and altered in structure, its round cells appearing separated as if by fluid effused between them, and being surrounded by a fibrillar growth, reminding one of the state of things found in the ovaries. He would leave it to the pathologists to decide whether there was any connexion between the leukæmia from which the patient suffered and the myxomatous enlargement of the ovaries.

Dr. ROPER exhibited the cast of the Head of a Child born under face presentation, mento-anterior, showing the characteristic distortion of face and cranium which usually takes place in this presentation. The labour, which was a hard one, did not terminate until nineteen hours after. The liquor amnii had been discharged nineteen hours. The head, however, was easily delivered by forceps, though the child, a female of large size, was still-born.

Dr. CHAMPNEYS exhibited the Retroflexed Uterus and neighbouring parts taken from the body of a woman, aged forty-two, who had died of pulmonary hæmorrhage. The uterus was decidedly retroflexed—a state apparently caused by a thickened band of tissue which, starting slightly above the level of the os internum, where it was about one-third of an inch broad, ran downwards, and ended in right utero-rectal ligament, which was decidedly thickened along its upper border, and far better marked than its fellow on the opposite side. In reply to Dr. Meadows, he said that he had not yet made measurements of the thickness of the uterine walls.

A case of Hand-behind-head Presentation was reported to the Society by Dr. JAMES BRYDON, of Harwich. Pains did not come on until fourteen hours after the waters ruptured, and, on examining the patient two hours later, Dr. Brydon found the os dilated to the size of a half-crown, and a hand protruding through it. As it emerged its face was to the front, the right arm protruded to the back of the head, and the arm and forearm lay around the occiput. This presentation, concluded Dr. Brydon, was very rare, and few of the cases which had been recorded passed off so easily as this one.

Dr. AVELING exhibited some Repositors which he had devised for the treatment of Inversion of the Uterus, and related the particulars of a very obstinate case which he had recently succeeded in reducing by their agency. His repositors consisted of cups of various sizes attached to stems, which differed from those of all other repositors in having both a pelvic and a perineal curve.—The PRESIDENT congratulated Dr. Aveling on the success of his case, and said that he felt disposed to subscribe to what he had said as to the possibility of all, or almost all, such cases being returned.

Dr. AVELING read a paper on the "Curves of Midwifery Forceps, their origin and uses." The author commenced by saying that the curves of the forceps were of especial interest to Englishmen, as all of them had had their origin in this country. At present, however, it was not his intention to submit to their notice the minor curves, but only those which might be looked upon as fundamental—viz., the head curve, the pelvic curve, the perineal curve, and the handle curve. These he would consider in their historical, anatomical, and mechanical aspects. 1. *The head curve:* After briefly alluding to the anatomical conditions affecting the head curve, the author passed on to its mechanical requirements, which he considered under the headings, Introduction, Prehension, Compression, and Traction. The blade of a forceps could not be easily introduced if its curve were too abrupt or too open. The nine-inch curve, which was most suitable for introduction, also, fortunately, happened to meet other mechanical requirements. The best curve which could be given to the blades to render them safe and effectively retentive was that which coincided most nearly with the curve of the fœtal head. The nine-inch curve fulfilled this requirement as far as was practicable, and it might therefore be advantageously adopted for introduction, prehension, and traction. 2. *The pelvic curve:* Under mechanical requirements, the author showed that the pelvic curve facilitated introduction, and enabled the blades to seize the head before it entered the pelvic cavity in a line with the axis of the brim. In traction, however, it might or might not be advantageous, according to the manner in which the force was applied. When traction was made by the handles alone, the straight forceps drew the head less upon the pelvic bones than the forceps having the pelvic curve, and to overcome this difficulty the latter must be used with two hands acting in opposite directions. 3. *The perineal curve:* The originator of this curve was Dr. Robert Wallace Johnson, who published a description of it in 1769. This curve was anatomically rendered necessary by the fact that the perineum stretched across the pelvic outlet and occluded the space which the shanks of ordinary forceps would occupy when traction was exerted upon the distant head. The line of traction, too, which this curve permitted much more nearly approximated to the axis of the brim than in the case of straight or pelvic curve forceps. 4. *The handle curve:* Notwithstanding these improvements, no instrument was found to admit of traction being exerted in the required line when the head was high in the pelvis. Attempts had been made to overcome this difficulty by various obstetricians, and in March, 1868, the author had presented to the Society a forceps the handles of which were curved backwards. This curve rendered introduction easier, enabled the operator to avoid undue compression, and greatly facilitated traction. But its great advantage was that it enabled one to use traction power in the right direction, and thus to reduce the necessary forces of compression and traction to the minimum of intensity. He had used both long and short forceps with the handle curve frequently, and though the model was doubtless capable of improvement, he had been much satisfied with its easy application, its efficient prehension, and, above all, with its direct tractive power.

A Laboratory Note on the Revolutions of the Fœtal Head in passing through a brim contracted only in the conjugate diameter was contributed by Dr. MATTHEWS DUNCAN. The only point considered in the note was movements of the fœtal skull in a coronal plane—that is, revolutions around the pubic part of the pelvic brim and around the promontory of the sacrum; movement resembling right and left lateral flexion, or like revolution in an internal or occipito-frontal axis. From this last kind of movements the revolutionary movements were distinct, because the revolutionary movement on an external axis implied progress of the head as a whole, and not mere movement in itself. Dr. Duncan's conclusions were based chiefly on experiments with fresh mature fœtuses and modern pelvic brims, and tallied remarkably with the results of clinical observation of the progress of the head in head-last and in head-first cases in simple narrow pelves. Recent inquiries into this subject had increased our

practical usefulness distinctly, and further elucidation of it was desirable. The experiments were made in imitation of footling cases, and the first result of traction through the spine was a revolution around the pubic part of the brim, the sagittal suture approximating to the promontory. The next and greater revolution was around the promontory, the sagittal suture approximating to the pubes. The side of the base of the skull placed posteriorly passed first through the contraction, and during the first revolution. The side of the vault of the skull placed anteriorly passed first, and during the second or greater revolution. Litzmann, Lals, Kleinwächter, and Spiegelberg described only the first revolution, or rather its analogue, in head-first cases. Barnes described only the second or greater revolution. Goodell, in singular accordance with the conclusions of this note, described two movements, but not as revolutions, and he made this accurate description of both head-first and head-last cases. The movement of the sagittal suture towards the sacrum (and the base of the fœtal skull in nearly an opposite direction) in the first part of the passage in head-last cases, was analogous to the movement of the sagittal suture forwards at the same stage of a head-first case. In both the head was revolving to a slight degree on the pubic part of the brim of the pelvis. The movement of the sagittal suture towards the symphysis (and the base of the fœtal skull in nearly an opposite direction) in the second and greater part of the passage in head-last cases, was analogous to the movement of the sagittal suture backwards or towards the hollow of the sacrum at the same stage of a head-first case. In both the head was making its greater revolution on the promontory of the sacrum.—Remarks were made by Dr. Braxton Hicks, Dr. Champneys, and Dr. Galabin.

PROVINCIAL MEDICAL SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—At the meeting of this Society on May 15th Dr. G. BALFOUR introduced a young man, twenty-two years of age, the subject of diabetes, in whom great benefit had followed the administration of diluted nitric acid in twenty-minim doses four times a day, after all other remedies had failed. The diet was restricted. A year previously he was passing 400 oz. of urine daily, containing 16 oz. of sugar, and three months ago he only weighed seven stones. The daily quantity of urine was now 50 oz., with an ounce of sugar, and the body weight had arisen to nine stones.—Mr. CHIENE introduced a patient on whom he had performed the operation of nerve-stretching for a severe, prolonged, and intractable attack of sciatica. The man, about forty years of age, can now move the leg freely, having previously been prevented from work for a period of nine months. The subject of nerve-stretching also received attention in a paper by Mr. JOHNSON SYMINGTON, M.B., in which he described experiments performed with a view to test the cohesion of nerves. Out of fourteen observations on the dead body, in which weights were rapidly attached to the great sciatic nerve immediately below the gluteus muscle, 130 lb. was the average weight found necessary to rupture the nerve. The maximum, 176 lb., was required to tear the nerve in the body of a strong muscular man, who had died rapidly from an injury to the head; the minimum, 86 lb., in the body of a young female, aged eighteen, who had died from phthisis. Six gave way at the hook attaching the weight, whilst the eight others separated at the nerve-roots.—Mr. Joseph Bell had performed the operation of nerve-stretching in a case of inveterate sciatica. After opening the sheath of the nerve, and laying hold of the nerve with the finger, it easily came up as a loop, and, in pulling on the nerve from the point of origin, as well as from the distal side, the feeling he had was as if he was pulling a vegetable, with long fibrous roots, from the ground. He stopped short of lifting the patient from the table by his sciatic nerve. No paralysis supervened.—Mr. J. Chiene had operated in five cases of severe sciatica. He does not lift the limb from the table by the nerve, and has recently simplified the operation by making an incision, one inch in length, externally at the angle made by the lower border of the gluteus maximus and biceps cruris. What was the essential pathology of sciatica? Thickening of the nerve-sheath was often held to be its cause, and in one case he had found the veins on the nerve to be varicose.—Dr. Alex. Miller showed the instruments used by the natives of Japan in the treatment of sciatica. They consist of fine gold needles, which are thrust into the limb at the seat of pain, and left there for some time. Dr. Miller said that in the operation of nerve-stretching the carbolic acid used for antiseptic purposes might have to do with the good result.—Dr. J. Duncan said it was Syme's practice to thrust the needles through the nerve and down to the bone, and leave them there for an hour and a half.—Dr. G. Balfour had never failed to cure sciatica medicinally, and with the help of acupuncture, or morphia or atropia injections.—Dr. J. DUNCAN showed a Sarcoma, removed from the right side of the neck. It was of the size of a small orange, and lay underneath the sterno-mastoid muscle. Its removal required careful dissection, lasting an hour and a half, a deep process passing between the jugular vein and carotid artery. The carotid was exposed for two inches and a half, and part of its sheath had to be removed. The vagus was laid bare for three-quarters of an inch.—Professor ANNANDALE exhibited a new American form of Tourniquet, formed by a hollow elastic ring of different sizes.—Dr. HAMILTON showed the Blood of a Diabetic Patient, who had died comatose at the age of sixteen, having suffered six years from the disease. The blood separated into two distinct layers—an upper milky-white, and a lower bright red. The urine found in the bladder contained a large quantity of acetone; but there was a very small amount of acetone in the blood.—Dr. JOHN DUNCAN read a paper "On the Various Methods of Administering Mercury"—namely, by subcutaneous injection, by fumigation, by inunction, and by the mouth, giving his preference to the last-mentioned. In the treatment of syphilis, the solution of the perchloride of mercury was the best form of the drug to administer internally; it might be supplemented by the use of the vapour-bath, with an occasional mercurial fumigation, ample, good, non-stimulating diet, and open-air exercise.—Dr. Cadell did not think mercury necessary in the treatment of syphilis, and had had good results from general non-mercurial tonic treatment.—Dr. Allan Jamieson spoke of the efficacy of mercurial plaster, and also of the value of mercurial inunction in infantile syphilis.—Dr. Alex. Miller thought it should not be pushed to salivation. He advised inunction over indurated syphilitic glands, and was certain of the value of mercury in hereditary syphilis.—Dr. Duncan replied.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—May meeting; the President, R. H. Meade, Esq., in the chair.—Mr. ASTON made some observations on the action of Codeia. In considering a dozen cases of diabetes mellitus he had observed that its first effect was to diminish the quantity of urine, the specific gravity thereafter rising and then becoming diminished; on increasing the codeia, a fresh diminution of the urine, a rise in the specific gravity, with a subsequent fall, again occurred. Having a case of diabetes insipidus presented to him, in which a man passed twelve pints of urine daily, highly albuminous, with no sugar, a specific gravity of only 1002, and who had excessive thirst, great emaciation, a pulse of 130, neuralgic pains, and cardiac hypertrophy, and on whom the remedies for Bright's disease produced no effect, he determined to employ codeia. The result of a month's treatment was—disappearance of the thirst and neuralgic pains, diminution of urine to four pints daily, with rising of the gravity, general improvement of health and strength, though the albumen continued present. The quantity administered was ¼ gr., increased to 1½ gr., three times a day.—The President had found, in a case of diabetes with diarrhœa, in which he had used morphia and bismuth, that codeia, though it did not check the diarrhœa, diminished the thirst and the flow of urine.—In reply to Drs. Goyder, Dunlop, Tibbits, Whalley, Thomas, and Appleyard, Mr. Aston said that the constipating effects of codeia were obviated by extracts of aloes and nux vomica; that when intermitted the patient's thirst, neuralgic pains, and flow of urine increased; he generally augmented the dose to 1½ grs., beyond which he did not find it needful to go; the albumen increased, but not proportionately with the decrease of urine; codeia did not seem to have hypnotic effects; it diminished the frequency of the pulse.—The PRESIDENT read a paper on Pernicious Anæmia, in which the subjects of it, chiefly of middle age, seemed to sink and die without discoverable cause, as if from lack of red blood. Addison pointed out the distinction between this anæmia and the curable forms in amenorrhœa and chlorosis, in which the powers of assimilation and nutrition were defective; here

the affection was intractable and fatal. The microscope failed to enlighten as to cause. Mr. Meade illustrated the disease by a case. The patient, at first stout, strong, and florid, but of gouty diathesis, was attacked with sciatica; after partial recovery from this, he began to fail generally, became as if bloodless, with pallid mucous surfaces, and though his appetite continued good, his food failed to nourish him. Careful examination disclosed no lesion of the viscera. No treatment was of any avail. All attempts to discover a cancerous origin failed. A careful consideration of this disease pointed to some obscure form of cancer affecting the digestive and assimilative organs. Dr. Fenwick, of the London Hospital, discovered in one case atrophy of the glandular structure of the stomach.—Mr. Appleyard quoted a case of pernicious anæmia, in which there was disease of glands obstructing the lacteals. — Dr. Whalley mentioned a case in which scirrhus of the pancreas was found after death.—Dr. Bell cited similar cases, but thought the cause still *sub judice*, and Mr. Mossop thought their intractability suggestive of their malignant character.—The President said no malignant disease existed in his case.—Mr. J. APPLEYARD related two cases of Gangrene or Noma of the External Genital Organs in Childhood. One was a case of noma vulvæ in a girl seven months old, for which the mother refused active treatment. The child died on the sixth day after it was seen. When first observed there was a dry hard scab on the inner surface of the right labium, with much induration of its substance. The other, a boy four years old, had a rapidly recurring phimosis and tight preputial orifice. Prepuce slit up on same evening that the preceding case died, and by an unfortunate mistake the boy was placed after operation in the same bed that the preceding case occupied. On the evening of the fourth day after operation a tough, white, parchment-like membrane developed on the cut surface, and also over the glans penis, firmly adherent, and having a raw oozing surface when forcibly detached. Application of strong nitric acid and a continuous warm bath at 98° F. for three days, and repeated afterwards at intervals, checked the progress of the disease. The sloughs suppurated on the tenth day, and he was discharged healed at the end of five weeks.—The President said that such cases were clearly traceable to neglect and insufficient food.—Mr. Denby and Mr. Appleyard testified to the value of baths in cleansing and arresting the spread of gangrene, even after the application of caustics.

Reviews and Notices of Books.

An Elementary Course of Botany. By Professor ARTHUR HENFREY, F.R.S. Third Edition by MAXWELL T. MASTERS, M.D., F.R.S. Illustrated by upwards of 600 Woodcuts. p. 741. London: J. Van Voorst. 1878.

IN the thick and closely-printed volume before us we scarcely recognise any similarity to the small book we remember to have read some twenty years ago by the excellent botanist whose name, indeed, still appears on the back, but whose handiwork is now replaced by recent researches. Botany, in common with every other branch of natural science, has made prodigious strides during the last few years, and every part of it bears witness to the industry with which it has been cultivated. More fortunate than his brother the physiologist, the botanist can make what experiments he pleases without fear of legislative enactments, or dread of wounding the sensibilities of an undiscerning public. He may bore holes into or ring his trunks, may shut his leaves up in the dark, may treat them with poisonous reagents, may irritate his sensitive plants beyond endurance, may experiment on the flow of the sap or arrest it altogether, may burn, electrify, or asphyxiate his subjects, and yet escape unscathed without awakening even a sigh of pity or the feeblest remonstrance. Yet who will say that some diffused nervous influence does not exist—some dim consciousness, which a future generation, with wider sympathies, may insist on being respected? Dr. Masters has placed before the student a thoroughly sound and reliable account of all recent and important work. Having looked, for example, to see whether he had noticed Schwendener's algo-fungal theory of the nature of lichens, we come upon the following statement under the head of "Lichenes":—"Fungi, consisting of a thallus of densely interwoven nymphæ, sometimes forming pseudo-parenchyme deriving their nourishment from minute algæ (formerly called gonidia), imbedded in the thallus (such as Palmella nostoc, &c.), and forming regular organs of fructification (apothecia), containing asci, in some instances known to be the result of a sexual process. There are formed also on the thallus spermogonia, containing spermatia, the male organs which have been proved in certain cases to fertilise a female organ called a trichogyne, and occasionally pyenidia." A list of four illustrative genera is then given, and he proceeds to say that the parasiticism of the fungal portion of the lichen thallus is not of such a nature as to cause the death of the host alga, but the relations seem to be so equally balanced as to allow of the protracted mutual existence of both. Examples of the life history of lichens is given in the Collemaceæ. In this subdivision the minute male cells or spermatia (though sexuality is not known to exist generally amongst lichens) are formed within closed receptacles, called spermogonia, and, unendowed with the power of motion, reach the female organs by the conduction of water (rain, &c.) The female organs, or trichogynes, may be said to be composed of three parts, according to their function—(1) a unicellular organ of conception; (2) a conductive canal; and (3) an ascogonium in the form of coils, also composed of several cells, which, when fertilised, give rise to the spores. The method of impregnation is then described. The distribution of lichens is given, and, finally, there is a section on their qualities and uses. Altogether, therefore, the section on lichens is sufficiently comprehensive and well written.

The work is divided into four parts: the first comprising Morphology, or Comparative Anatomy; the second, Systematic Botany; the third, Physiology; and the last, Geographical and Geological Botany. Wherever we have opened the book the statements seem to us to be accurately and intelligibly written, and we can recommend it as one of the best manuals of botany we have examined.

Pathological Report of the Montreal General Hospital for the year ending May 1st, 1877. By WILLIAM OSLER, M.D. Montreal: Dawson Bros. 1878.

A CAREFUL and elaborate analysis of a year's work in the post-mortem room of a Canadian hospital, which will bear comparison with any similar report published in the mother country. The number of cases that Dr. Osler has had to deal with has been one hundred, and from these he has selected only those which are of most pathological value. The cases have been well worked out, and in many instances detailed microscopical examinations have been necessary. To some of the pathological reports Dr. Osler has been enabled to prefix a sketch of the clinical details of the cases, and to many he adds a short account of recent literature on the subjects dealt with—e.g., hypertrophic cirrhosis, pernicious anæmia, &c. The volume is tastefully "got up," is well printed on good paper, and has its leaves cut; a few woodcut illustrations are given, the most notable being one showing an aneurism of the hepatic artery. We hope this is only the first of a long series of similar reports from the Montreal Hospital.

Considérations Générales sur l'Ophthalmie d'Egypte. Par le Dr. DUTRIEUX. pp. 150. Cairo. 1878. One of the publications of the Etat-Major Général Egyptien.

DR. DUTRIEUX commences his *brochure* with a short historical account of the disease well known under the name of Egyptian ophthalmia to the last generation of military surgeons, though, happily, comparatively rare in

our army at present. He notices the purulent ophthalmia of new-born children and gonorrhœal ophthalmia, and points out how they both agree with Egyptian ophthalmia in the contagiousness of their secretion. He notices also the frequency of venereal affections in the East, and shows how often blindness occurs amongst prostitutes. He does not think the trachoma granulations seen in this disease constitute a necessary condition of its contagiousness; they are commonly, but not constantly, present, and their presence is always a source of danger. All climatic conditions tending to produce catarrhal ophthalmia prepare the ground and predispose to purulent ophthalmia, whilst all conditions like overcrowding and uncleanliness facilitate its spread when once introduced. Dr. Dutrieux seems to regard the disease as identical with gonorrhœal ophthalmia, appearing and spreading under peculiarly favourable circumstances. He gives sound and sensible rules, which, however, contain nothing new, for the treatment, both prophylactic and immediate, of the disease. In the second part of the work he deals with the treatment of opacities of the cornea so often left after an attack of purulent ophthalmia. The work concludes with some observations on iridectomy, and the treatment of anterior synechiæ.

Jahresbericht des Schwedischen Heilgymnastichen Institutes in Bremen. Von Professor Dr. AXEL SIGFRID ULRICK. Pamphlet.

IN this little pamphlet of nineteen pages, the record is contained of the cases received into an institution and treated in a mode of which we have no exact parallel in England—an institution where the patients are treated by movements, active and passive. No particulars are given of the precise methods pursued, but it is stated that the following cases were absolutely and perfectly cured:—Two cases of chronic diarrhœa; two of nervous shock; two of insomnia; three of spermatorrhœa; four of chronic headache; four of vertigo and giddiness; five of cardialgia; six of menstrual disturbances; six of flatulence; fourteen of lumbago and chronic rheumatism; thirteen of congestion of the head; and twenty-three of constipation. This mode of treatment appears to have been effective in various forms of spinal curvature, and also in nervous affections. A short account might with advantage have been prefixed of the general methods of treatment adopted, even if no details were given of the individual cases.

Zeitschrift für Biologie. Band XIV., Heft 1.

THIS part contains the following articles:—1. Ueber Ventilations formeln; by Dr. A. Jacoby: a paper that bristles with mathematical signs and symbols, and requires a wrangler to read it. Appended to it is a short article by Dr. W. Hesse, on the Determination of Carbonic-acid Gas in the Air. 2. Zur Quantitativen Spectral-analyse; by K. Vierordt. 3. Ueber den Einfluss der Temperatur der umgebenden Luft auf die Kohlensäure auscheidung und die Sauerstoff-aufnahme bei einer Katze; by Carl Theodor: in which it is shown that both the excretion of carbon and the absorption of oxygen undergo increase in a cold and diminution in a warm atmosphere. The next article (4), by Carl Voit, is very similar: Ueber die Wirkung der Temperatur der umgebenden Luft auf die Zersetzungen im Organismus der Warmblüter. It occupies the rest of the part.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mr. Joseph Alexander Batho, of Regency-square, Brighton, bequeathed £200 each to the Royal Hospital for Incurables, the Earlswood Asylum for Idiots, and the City of London Hospital for Diseases of the Chest. The Grocers' Company have given £100 to the Royal National Hospital for Consumption, Ventnor. "A Friend" has given £500 to the Charing-cross Hospital.

A BRIEF DESCRIPTION OF THE NEW WEST HERTS INFIRMARY.

BY ROBERT Z. PITTS, HOUSE-SURGEON.

THE Old West Herts Infirmary, at Hemel Hempstead, had become inadequate, both as regards space and the requirements of modern medical science, to provide for the rapidly-increasing numbers of the sick poor of West Hertfordshire, and it was found impossible to make any satisfactory improvements in the old building. The governors, therefore, resolved to erect a new infirmary on a new site, and, having purchased for that purpose three acres of land adjoining the old infirmary, they erected upon it an infirmary to hold fifty patients, at a cost of between £13,000 and £14,000. The site is admirably suited to the purpose, as it slopes towards the west, and is well protected on the east and north by rising ground, whilst to the south and west it commands extensive views of the surrounding country.

The building is in the Italian style, and, although perfectly plain, and built entirely with a view to its hygienic requirements, has a very pleasing appearance. The materials used are Cowley bricks, relieved with red bands, and dressings of Ancaster stone, the roofs being slated. It is divided into three blocks, the centre portion being devoted to the administrative offices and the out-patients, whilst the in-patients occupy the two wings.

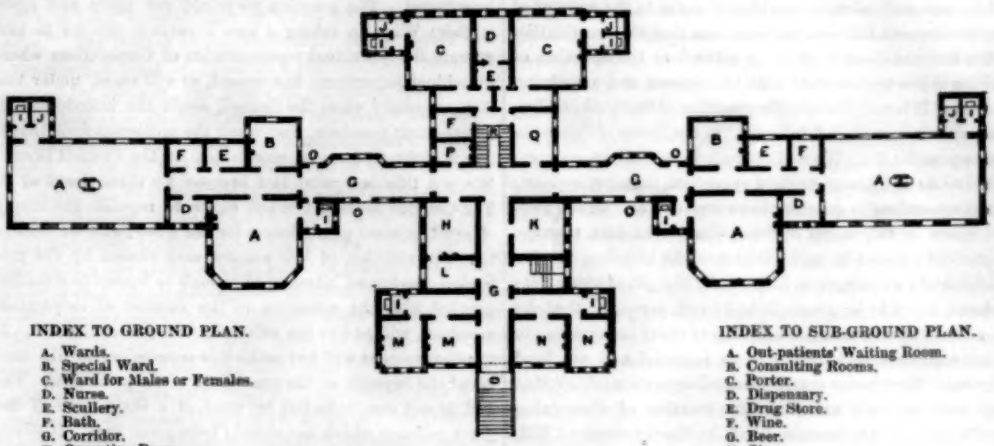
The building has been planned with care, and the peculiarities of the ground have been made use of to the utmost. The principal or ground floor is approached by a wide flight of steps leading to the entrance hall, on either side of which are placed the house-surgeon's and matron's rooms, the committee-room, assistant secretary's office, and the operating-room. Over the house-surgeon's and matron's rooms are the bedrooms of the servants. At the end of the hall is a spacious staircase, at right angles to which corridors, heated by hot-water pipes, lead to the several wards. The kitchen offices occupy a mezzanine floor, beyond and below the central stairs, and a lift is provided from this department to the floors above.

The operating-room is well situated in the central block, opening into the main corridor, and having good north lights and a large ventilating skylight. The gas jets in it are similar to those used in billiard-rooms, and are, besides, fitted with a tube and jet, which can be moved to any position or to any part of the room. The operating-table is similar to those now in use at St. Thomas's.

The wards, which are principally in the wings, are of various sizes, with a view to the better classification of the patients, and provide a cubical space of 14,000 feet to each bed. They are handsome, cheerful rooms, with polished pitch-pine floors, the walls in distemper of a light grey, with a dado of Indian red. Bath-rooms, sculleries, &c., are provided for each set; and the nurses' rooms are situated so that the nurse can see into both the large wards. The external walls of all the wards are built hollow so as to ensure dryness, and are plastered internally with selenitic cement.

The ventilation is effected as follows. The windows, which are of course important agents in the ventilation of the wards, are arranged on opposite sides of the rooms so as to be of the greatest use. They are upon the louvre principle, now generally adopted in first-class hospitals. Windows, however, can only be used at certain times, and a system of ventilation has consequently been adopted by which a continual change of air is kept up at all times. Galton stoves have been used in all the wards, and in the large wards are placed in the centre. These are stoves having chambers at the back of the fire for warming fresh air, which is conducted from the outside of the building into the chamber, and thence, when warmed, passes through gratings into the wards. When alight these stoves keep up a continual supply of warm fresh air to the wards, and of course at the same time take off a continual stream of foul air through the smoke-flues, in which are placed gas-jets intended to act as extractors when the fires are not alight.

Sherringham's ventilators are placed round the walls, just below the ceilings, to act as inlets for fresh air. Zinc hoods, terminating in ventilating tubes, are placed over all gas jets, to catch and carry away the impure air. Thus a continual supply of fresh air is kept up by the fireplaces and Sherringham's ventilators, whilst the impure air is taken off by the fires, the gas jets in the smoke-flues, and the ventilating tubes over the gas-burners, and, in certain states of the atmosphere, by Sherringham's ventilators also. At the back, and somewhat above the central corridor, are two wards, so arranged that an excess of males or females can be provided for according to their varying numbers. All the wards communicate with the house-surgeon's rooms, by means of Zindar's pneumatic bells, and when once started in any ward can only be stopped at the other end. Owing to the fall of the ground the architects have been able to place the out-patients' rooms, with their consulting-room, dispensary, &c., below the principal floor in the central block. They are very easy of access, and entirely distinct from the other departments.



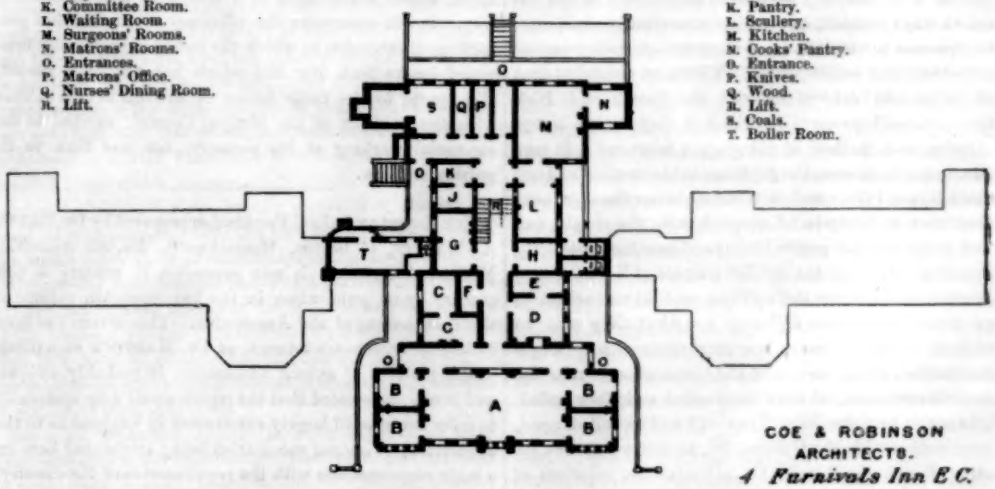
INDEX TO GROUND PLAN.

A. Wards.
B. Special Ward.
C. Ward for Males or Females.
D. Nurse.
E. Scullery.
F. Bath.
G. Corridor.
H. Operating Room.
I. W.C.
J. Slop Sink.
K. Committee Room.
L. Waiting Room.
M. Surgeons' Rooms.
N. Matrons' Rooms.
O. Entrances.
P. Matrons' Office.
Q. Nurses' Dining Room.
R. Lift.

GROUND PLAN.

INDEX TO SUB-GROUND PLAN.

A. Out-patients' Waiting Room.
B. Consulting Rooms.
C. Porter.
D. Dispensary.
E. Drug Store.
F. Wine.
G. Beer.
H. Store.
I. W.C.
J. Larder.
K. Pantry.
L. Scullery.
M. Kitchen.
N. Cooks' Pantry.
O. Entrance.
P. Knives.
Q. Wood.
R. Lift.
S. Coals.
T. Boiler Room.



SUB-GROUND PLAN.

COE & ROBINSON
ARCHITECTS.
4 Furnivals Inn E.C.

Speaking-tubes and pneumatic bells are employed over the different parts of the building.

The drainage has been ventilated throughout upon the "Banner" principle, the drains being divided into sections, each section having an inlet at one end for fresh air, and at the opposite end a patent extraction cowl surmounting a soil-pipe, which is carried up some feet above the roof. Traps are avoided as far as possible in the drains; and at the junctions inspection shafts are provided, so that any obstruction may be readily detected and removed. Pearson's patent twin basin closets have been used throughout.

The laundry is situated at the back of the main building and quite separate from it, and has every modern appliance for washing and drying effectually.

The building has now been occupied several months, and has worked well.

The out-patient department, which is often the weakest point in country hospitals, is perfect, and is so planned that although the number of out-patients attending at one time is very great, they form a continuous stream in and out, and thus prevent the great confusion which is often seen in out-patient departments.

THE appointment of surgeon to the School of Musketry, Hythe, vacant by the death of Dr. Schooles, has been given to Deputy Surgeon-general James Crerar, on the half-pay list.

THE LANCET.

LONDON: SATURDAY, JUNE 22, 1878.

ALL real medical reformers should come to the support of the Government Bill—on the condition that the constitution of the Medical Council shall be altered in the direction of making it less representative of educational and examining interests. It is said that the Corporations of Scotland and Ireland will reassert their "interests" in the House of Commons and oppose the Bill. We will not believe this till we are compelled to do so by more decided opposition than yet appears. The Corporations in question have received one strong two-fold lesson in the course of the session—viz.: first, that the creation of a Board in each division of the kingdom to give a satisfactory examination, followed by the gift of a complete diploma, is yet to be accomplished; and, secondly, that the creation of such a Board is a matter of State importance, to be accomplished with reference to Imperial and not local interests. No persons outside these Corporations think that they will seriously suffer by the creation of Examining Boards such as are contemplated in the Government Bill. But even if they should—they must. The locomotive engine might as properly have been suppressed in the interest of stage coaches, as complete examinations and complete diplomas in the interest of Corporations giving partial examinations and half-diplomas. This is an absurdity that must cease and determine; and the Scotch and Irish Corporations will be very ill-advised if they do not accept the Government method of bringing it to an end. It may not be quite so favourable for them as the method of Lord RIPON'S Bill in 1870. But it is much better than the next method that is likely to be adopted—viz., the simple, and in our judgment the preferable, one of creating a perfectly independent Board for the special purpose of licensing men to practise, and leaving the existing medical authorities to grant their degrees and diplomas for what they may be considered worth as mere honorary distinctions. Some critics, indeed, speak now as if the Corporations under the present Government Bill were superseded and disregarded. We do not so read the Bill. They will still be called upon, in conjunction with the Universities, to frame schemes for creating Examining Boards, to determine the relations of those who "pass" to these Boards, and to regulate the fees and the way in which they are to be disposed of. This is no mean perpetuation of the present influence of the Corporations; and it affords, in our opinion, only too good a guarantee of the perpetuation of their traditional pecuniary claims in connexion with the cost of qualifying to practise. They may well consider whether any equal regard for their "interests" is likely to hinder future Governments, after the experience of the present and the late Governments, in trying to adapt old machinery to new wants.

But while we urge reformers to support the Government Bill, it is only on the condition of a concession by the Government of some change in the constitution of the Council. The individual corporations will no longer have any power of granting qualifications to practise. The terms and conditions on which these qualifications are to be granted, the education to be gone through, the nature of the examinations to be passed, will all have to be determined henceforth, not by the several corporations, but by the Medical Council. The Council will have far more responsible duties to perform under this Bill than it has ever yet had to discharge—duties of which the respective corporations will be relieved. The question we would put again and again is this: Why, in taking a new departure, are we to perpetuate the individual representation of Corporations whose individual importance has ceased, or will cease, under this Act, especially when the Council needs the introduction of independent members, and when the profession feels that it has a right to some representation at the Council Board? We put this last point last because we think least of it. The General Medical Council exists to regulate the supply of good general practitioners for the State, and we believe that the addition of half a dozen men chosen by the profession, having no interests of schools or boards to consider, coupled with the reduction in the number of corporation members, will add to the efficiency of such a Council. If the Government will but make this concession, it will command the support of the great bulk of the profession. The Bill is not one to be lost for want of a little more of the great patience which has already been given to it. It effects changes which must come, and, with a few further alterations, would effect them in a creditable and satisfactory way. It will determine the efficiency of the medical profession—a profession in which the public is profoundly interested—more than any Bill which has yet been passed. We appeal to the noble author of the Bill to deal at once with the question of the Medical Council, as vital to the successful working of his measure, not less than to its passing into law.

THE Report on Animal Vaccination prepared by Dr. HENRY A. MARTIN, of Boston, Massachusets, for the American Medical Association, is now accessible to readers in this country by its publication in the twenty-eighth volume of the Transactions of the Association. This return has been looked for with much interest, as Dr. MARTIN'S experience in the practice of animal vaccination is probably unique, and it was anticipated that the report would help materially to solve doubts still largely entertained in England as to the advisability of animal vaccination being introduced here on a scale commensurate with the requirements of the country, assuming that the views of its advocates were confirmed. It is greatly to be regretted that the report is marred by imputations upon the good faith of our public vaccinators and the officers of the National Vaccine Establishment. But setting this aside, and restricting ourselves to the results of Dr. MARTIN'S experience of animal vaccination, as given in this report, considerations are suggested which, in view of certain recent events in this country, demand the most earnest attention.

And, first, let it be understood in what sense Dr. MARTIN uses the term "animal vaccination," for some misapprehension might probably exist on this point. He uses it to express, as he terms it, "the inoculation of a young selected animal of the bovine species, from an original spontaneous

case of cow-pox, from this to others, and so on in continuous and endless series, as a source, and the only source, of virus to be used for the protection of the human race from variolous disease." Dr. MARTIN began his experiments with the celebrated Beaugency lymph of the 258th—260th remove, in 1870, after an extensive experience of humanised lymph, including lymph of the Jennerian "stock" of the English Vaccine Institution, which he describes as "the very finest lymph of long humanisation of which he had ever experience." The state of animal vaccination at this period was as described in what Dr. MARTIN designates the "famous" report of Dr. SEATON, and it is with particular reference to the conclusions of Dr. SEATON in this report that the results of Dr. MARTIN'S experience have a special interest for this country. Now Dr. SEATON showed that in 1870 there were not inconsiderable difficulties in the successful transmission of lymph from one animal to another; that in the vaccination of children with animal lymph, there were, even with the most skilled operators, a very large proportion—as much as 25 per cent. on an average—of failures; that in the successful vaccinations with animal lymph there was nothing to distinguish the induced disease, either as to appearance of pock, duration, scabbing, and subsequent cicatrix, from the appearance, duration, scabbing, and cicatrix of pock produced by the Jennerian lymph in use at the National Vaccine Institution; and that preserved animal lymph rapidly became inert. It was obvious that a method of vaccination which was characterised by uncertainties such as the above, and which presented no feature of advantage as compared with humanised lymph, would not meet the needs of public vaccination as provided for in this country. The notion that animal lymph would be free from chances of syphilitic contamination is so fallacious that we are surprised to see Dr. MARTIN reproduce it, and so contribute to the perpetuation of the fanciful ideas which too commonly obtain on the origin of vaccino-syphilis. We are equally surprised to observe his want of acquaintance with the circumstances under which the well-known cases of vaccino-syphilis examined by Mr. HUTCHINSON were brought under that gentleman's notice—namely, through the agency of Dr. SEATON and the officers of the National Vaccine Establishment; but we cannot admit that this want of information justifies in the least degree the remarks he has thought fit to make upon these gentlemen in respect to vaccino-syphilis.

Since Dr. SEATON'S inquiry in 1870, as we have more than once during the last two or three years had occasion to note, there is good reason to believe that the practice and prospects of animal vaccination have undergone a very considerable change of deep interest to this country. Dr. MARTIN'S report is of peculiar importance with reference to this question, and may be taken to confirm very fully the views we have already expressed on the subject. In agreement with recent Belgian observation as to the practice of animal vaccination, Dr. MARTIN alleges, in effect, that the difficulties and objections described by Dr. SEATON have now been fully overcome. That is to say, that further experience, and improved methods of practice thence arising, have demonstrated that the transmission of animal vaccine from animal to animal may be carried out unfailingly without difficulty; that the vaccination of children with animal lymph can be effected with as great proportionate success as with humanised lymph; and that the lymph may be preserved so as to retain its active properties for as long a period as humanised lymph. Further, Dr. MARTIN asserts that in his practice the animal lymph is propagated in such perfection as invariably to give rise, when used in vaccinating children, to effects characteristically different from the best effects of the best-selected humanised lymph (that of the English Vaccine Institution)—effects distinguished by the slower and more perfect development of the pock, its more perfect scabbing, and by the greater perfection of the resulting cicatrix. He infers from these differences that the lymph thus obtained is of greater value—the progress of the vaccination, he argues, being more complete and thorough—as a protective agent than the humanised lymph. In other words, he argues that humanised lymph is deteriorated proportionately to the degree in which it fails to exhibit the phenomena of the animal lymph such as he describes them to be.

If these statements be confirmed on further inquiry, it follows that by successive improvements in the practice of animal vaccination the objections justly urged by Dr. SEATON in 1870 have now been met and successfully set aside. In view of the present unsettled state of professional and public feeling in this country as to the efficiency of the "stocks" of humanised lymph now in use, of a widely-entertained view of the great deterioration of much of this lymph, of the serious difficulties which attend the procuring of a sufficiency of lymph for revaccinations, and of the rapidly-growing desire among the population for vaccination by animal lymph, the time has now most certainly come when the further official consideration of animal vaccination, in the light of recent advances in knowledge of the subject, can no longer be postponed without a very grave responsibility resting on the Government. We say "official" consideration, because it is only by an official inquiry that the subject in its relation to public vaccination and the existing vaccination law can be comprehensively dealt with. We have more than once urged this view, in the hope that the Local Government Board would have seen the necessity of the course, and taken action in this direction. But that Board, the embodiment of delay, gives no sign of movement in the matter. Not the least evil of this procrastination has been that Mr. MARSON'S invaluable services for such an investigation as we would have are now lost by death. The subject is one eminently fitted for the consideration of a Royal Commission, and in its present aspect, if it stood alone (which it does not), should demonstrate the necessity of such a Commission being appointed on Vaccination with the least practicable delay.

IT may be set down as a postulate that the State has special duties in relation to drunkenness. That vice is either the cause or the sign of evils against which the population needs to be especially protected. While under the influence of intoxicating drink a man or woman is as unfit to exercise the functions of ordinary life, and as unworthy to be entrusted with its privileges, as a person labouring under any form of insanity. There can be no question as to the abstract right and wisdom of placing every subject of the State who exhibits symptoms of inebriety under the protection of the law. It would, practically, be inexpedient,

and probably unsafe, to empower the police to "take up" any person they supposed to be drunk, because many forms of excitement, and even disease, simulate the effects of inebriety in their general characteristics; but if it were possible to eliminate this element of danger to the liberty of the subject, there would be no ground for hesitation as to the public prudence of making drunkenness, as distinguished from the offences committed by a person under the influence of drink, penal. It would at present, probably, be difficult to convince the Legislature that mere drunkenness should be treated as a crime. Meanwhile, the time has arrived when a well-considered measure for the custody, and, if possible, the reformation, of habitual drunkards, is likely to find acceptance with Parliament. The practical question is how such a measure ought to be drawn.

We cannot approve the principle of "retreats" to be established by private persons as a commercial enterprise. The old sponging-houses are, happily, abolished: we venture to hope private asylums for lunatics may be held to be doomed, although the final extinction of this dangerous system is deferred; and the effect of recent legislation has been to take prisons out of the hand of local authorities and place them under State control. These reforms are diverse expressions of the same fundamental principle—namely, that the State alone should be trusted with the power of imposing personal restraint. In the interests of public safety, this advance in the right direction must be secured. On that ground alone therefore, the "Habitual Drunkards Bill" now before the House of Commons is not entitled to support. We cannot sanction the institution of a new class of private prisons when we are deeply concerned to see those remnants of a bad system—the private prisons for the insane—swept away. Other objections to the Bill before Parliament are, however, even greater than this. The scheme does not go far enough in some directions, while it goes much too far in others. It is a blunder at the outset to confound too needs, which are essentially dissimilar. The notion of a drunkard sending himself to prison for a term to reform his evil habits is grotesque. If a demand for "retreats" where discontented people of weak minds may escape from what they are pleased to call "temptation," really exists, it must be met, but not by throwing open the prisons in which habitual drunkards are to be incarcerated. There is a strong indication of amateur statesmanship in the proposal now before the Lower House which augurs ill for the success of any proposal emanating from the same quarter.

When the State comes to grapple boldly and seriously with the evil of drunkenness, it will need to concentrate its energy on a single preliminary question: Is the country prepared to treat self-intoxication as a *crime?* That it is an offence cannot be reasonably doubted, but is public opinion in the mood so to regard it? If this question receives an affirmative answer, the course before the Legislature will be sufficiently simple. Drunkenness must be punished; and in the course of his punishment the offender may be reformed. No possible right does, or can, exist to interfere on the ground of pity or benevolence. Either the State must take upon itself the gigantic burden of enforcing public morality in all its branches, or it will be compelled to reject the sentimental proposal to make people sober by Act of Parliament. When the initial difficulty as to the criminal nature of drunkenness as an offence against public order and safety is surmounted, then it will be easy to enact statutes providing for the prosecution and confinement of drunkards; but not until then. The collateral effect of including drunkenness in the category of penal offences would doubtless be to give a salutary impulse to the efforts of those who are seeking to eradicate this vice from their own natures and from those of their fellow-subjects; but this is a matter with which the State cannot interfere. We must not, even for the sake of making the population sober, entrust the power of imprisonment to the keepers of "retreats." The utmost that can be done in this direction is to empower magistrates to deal with cases of drunkenness in which repeated intoxication is proved as they deal with an inveterate habit of law-breaking which takes the form of stealing—that is, to send the culprit to prison for a lengthened period, and place him under police supervision for a term of still longer duration afterwards. If drunkenness is made a misdemeanour, apart from disorderly conduct, it will be possible to commit a man or woman to prison for the offence without the option of a fine; in the case of a second committal, to double the term of incarceration; and, if a third transgression occurs, to visit it with a long imprisonment, followed by police supervision. The general gain of making self-intoxication a crime would be great, and the power of repressing drunkenness which this simple enactment would give the magistrates could scarcely fail to answer every reasonable purpose. It would, of course, be necessary to require satisfactory evidence in the case, and this should be medical. There would, however, be no difficulty in procuring the testimony of a police-surgeon or general practitioner in the case of a person arrested while drunk. The diagnosis could not be left to the police.

We are strongly of opinion that it is only by dealing thus directly with the evil of drunkenness it is possible to bring habitual drunkards under effective conditions of reform. No half-measure, no permissive regulation, will suffice. Men and women will not send themselves to prison. If, in a mood of depression and under influence, a drunkard signed away his liberty for twelve months, he would either bitterly regret it after the reaction set in, and become the prey of resentful feelings anything but healthful, or he would be too strong-minded to have stood in need of more than a moderate amount of suasion such as might very well have been vouchsafed to him outside the walls of a prison—euphemistically called a "retreat"! The views of reformers on this matter of drunkenness are as unpractical as they are, too generally, intemperate. No inconsiderable proportion of the cases of habitual drunkenness set down to *vice* are, in truth, instances of a morbid craving due to disease. The desire for drink, or rather for the mental or physical relief it produces, is a symptom—an effect, not a cause. The number of cases of insanity attributed to this "cause" must be discounted by a very large percentage. It is the fashion of the day to fix on excess in drink as the fruitful source of social evils of all kinds. Poor human nature must ever plead some excuse for the indulgence of its bad propensities. Possibly in a few years "public opinion" will point to excess in eating, or the habit of turning night into day, as the cause of mental and moral weakness. There will be no less reason in these hypotheses than in that which now prevails.

The evil of drunkenness is admitted, only let us be reasonable in attempting its cure.

THE double danger of anæsthetics, arising from their variable influence on the respiratory and cardiac centres, has long been familiar to those engaged in their administration. This double action has been lately studied on animals by M. VULPIAN, who has communicated to the Académie des Sciences a note on the subject of some practical interest. The special point which it embraces is the effect of the various anæsthetic agents on the pneumogastric, as shown by the test afforded by the experiments of WEBER and TRAUBE on the section and stimulation of the nerve.

Curara, as is well known, does not influence, in any considerable degree, the effect on the heart of faradisation of the divided pneumogastrics. The heart is arrested in paralytic relaxation, but gradually, after some seconds, its movements recommence, even though the ends of the pneumogastrics are still being stimulated. Nevertheless, the effect of faradisation of the peripheral segments of the pneumogastrics is not absolutely the same in a curarised and in an unpoisoned animal. The effect of faradisation of a single vagus is less marked, and the diastolic arrest of the heart is less prolonged under the influence of curara. If the influence of the poison is profound, there is a period during which the strongest faradisation of the pneumogastrics has no other effect upon the heart than to accelerate its movements. From this it is evident that the curara does not, as was once supposed, leave intact the cardiac extremities of these nerves.

Anæsthetics, however, have been found by M. VULPIAN also to have a marked and very different influence on the excitation of the peripheral extremities of the pneumogastrics, and a still greater influence on the effect of excitation of the central extremities of the same nerves. The effect of chloral hydrate may be taken as an instance of this. If a solution of chloral be injected into the vein of a dog in a quantity sufficient to produce a profound sleep, complete anæsthesia is produced. The movements of the heart and of respiration continue. Occasionally, especially if the injection has been rapid, the respiratory movements suddenly cease, the heart continuing to beat for some minutes. Commonly the breathing recommences if artificial respiration is maintained for a few minutes, or if the trunk be faradised, intermittently, about twenty times a minute. It is sometimes necessary to continue this respiration for ten or twenty minutes before the spontaneous movements recommence. Occasionally this respiratory syncope, as it is termed by M. VULPIAN, occurs only some time after the injection, and during an experiment, perhaps in consequence of the traumatic irritation. Very similar accidents may be observed in animals placed under the influence of ether, chloroform, and analogous substances.

Another accident which may occur in dogs under the influence of chloral is the more or less sudden arrest of the heart's action, either during the intravenous injection or during an experiment involving irritation of the sensory nerves. The respiratory movements continue for some seconds after the heart has ceased to beat. It is very rarely that the cardiac contraction can be restored, even by faradisation employed at the moment at which the heart has ceased to beat. This cardiac syncope is also observed in animals under the influence of ether and chloroform. It is certainly sometimes due to the reflex influence of nerves irritated during an operation, but occurs as a result of this irritation much more readily in animals under the influence of an anæsthetic than in those which are not, or which are under the influence of curara. The comparative immunity from this accident which is presented by curarised animals is no doubt to be attributed to the influence of the poison in moderating the action of the pneumogastrics upon the heart.

From the phenomena mentioned above it is evident that the respiratory centre suffers remarkably in animals under the influence of anæsthetics, and especially under that of chloral. A slight increase in the quantity of chloral in the circulation, or a reflex influence, may arrest its action. So also with the cardiac centre. If the experiment of faradising the pneumogastrics is repeated upon animals under the influence of chloral, it is found that the stimulation of the central ends of the divided nerves arrests the movements of respiration, just as in an animal of the same kind under normal conditions; but whereas in the latter the respiratory movements go on again spontaneously and easily in most cases, in spite of the continuance of the stimulation, they do not return spontaneously in dogs under the influence of chloral, and the animals die unless the faradisation is stopped and artificial respiration employed, either alone or with the addition of intermitting faradisation of the trunk. Sometimes a few seconds' faradisation of the superior segments of the vagus nerve is sufficient to produce this arrest. Thus under these conditions we may have, on faradisation of the central ends of the divided pneumogastrics, the same effect which M. PAUL BERT has observed in animals not chloralised—sudden death. If the experiment is repeated in the same dog, the same result may be obtained two or three times, but not more. It is subsequently impossible thus to cause a persistent arrest of respiration. The spontaneous movements return after a suspension of greater or less duration, although the faradisation of the superior extremities of the vagi is continued. If in the same complete chloralisation the peripheral extremities of the pneumogastrics are faradised, the heart is arrested in diastole just as in animals, under normal conditions, and, what is rarely observed otherwise, it may be permanently arrested if the stimulation is prolonged for a short time.

These experiments illustrate very strikingly the phenomena which are sometimes observed in man, and they are of especial value in their proof of the influence which traumatic irritation may have in arresting the action of a centre depressed by the influence of an anæsthetic. But the experiments stop just where we should like them to go on. The differences in this respect, if any, which are to be observed between ether and chloroform is a point of great practical importance, and on which we hope M. VULPIAN may be able to furnish us with further information.

LAST week eighteen deaths from small-pox occurred in Dublin, being one less than in the preceding week. There appears no decrease in the number of fresh cases admitted to hospital; on the contrary, ninety-seven patients, or eleven more than in the previous week, were admitted into those institutions, whilst fifty-nine were discharged, fourteen died, and 258 remained under treatment on Saturday last.

Annotations.

"Ne quid nimis."

SANITARY HOSPITALS IN THE METROPOLIS.

A MEETING of representatives of Metropolitan Vestries and District Boards of Works (sanitary authorities) in the metropolis, which was held at the Cannon-street Hotel on the 18th inst., to consider the question of hospital provision for cases of infectious disease among persons not paupers, is chiefly of interest as showing that the subject is not being lost sight of by these authorities. The meeting had been convened at the suggestion of the sanitary authority for the Limehouse district, and Mr. Myerscough, of that district (the chairman), opened the proceedings by a speech, in which he described the position of the metropolis in reference to infectious disease hospitals, and by submitting the following motion:—"That in the opinion of this conference many almost insurmountable obstacles present themselves to carrying out by the Vestries and District Boards of the metropolis of the powers conferred upon them by the 37th section of the Sanitary Act, 1866; and it is further of opinion that it is desirable that provision should be made by Act of Parliament for one authority acting for the whole metropolis to provide hospital accommodation for non-pauper persons suffering from contagious diseases." An active discussion of this resolution followed, in which numerous gentlemen took part, and which was not completed until the time to close the meeting arrived. An adjournment of four weeks was moved and carried.

COMPULSORY VACCINATION AND SMALL-POX MORTALITY.

IT cannot be without interest to consider what has been the effect of the Compulsory Vaccination Act of 1853 upon the mortality from small-pox in England and Wales. Anti-vaccination literature, which is disseminated so industriously, never tires of asserting that small-pox is more fatal now than it was before the Compulsory Act was passed, and that the increased fatality is due to vaccination. Let us briefly examine such authentic facts as are available for calculating the rate of mortality from small-pox in England and Wales, both before and after 1853. Since Jenner's discovery at the close of last century vaccination became more general from year to year, but there are no data for estimating the extent to which it was adopted prior to 1853. The amount of small-pox mortality during the nearly forty years that intervened between the discovery of vaccination and the passing of the Births and Deaths Registration Act of 1837 can only be guessed at. After 1837, however, the national death-register becomes available, and the reports of the Registrar-General tell us that during the eleven years 1838–42 and 1847–52 the average annual death-rate from small-pox in England and Wales amounted to 442 per million of the population. These are the only years prior to the passing of the Compulsory Vaccination Act for which mortality statistics are available, as the causes of death in England and Wales during the four years 1843-6 have never been published by the Registrar-General. During the twenty-five years of compulsory vaccination 1853–77, notwithstanding the remarkable epidemic of 1871, the average annual death-rate from small-pox declined to 220 per million. Thus small-pox has been less than half as fatal since vaccination was made compulsory as it was during the eleven of the fifteen years prior to 1853 for which records exist; and yet, with figures like these at his disposal, Mr. Hume-Rothery recently wrote in "Social Notes" of "the remarkable failure of vaccination." If this decline in the fatality of small-pox be not due to the more general adoption of vaccination, how is it that no other of the zymotic diseases shows any similar decline? In London the rate of mortality from small-pox, notwithstanding the epidemics of 1871 and 1877, has also been considerably lower since than it was before compulsory vaccination, although the decline has not been so large as in the whole of England and Wales. During the fifteen years 1838–52 the annual death-rate from small-pox in London averaged 540 per million, whereas in the twenty-five years of compulsory vaccination 1853–77, it declined to 344 per million. If such are the results of our imperfect vaccination organisation, there seems little reason to doubt that we have in true vaccination a means for successfully controlling small-pox mortality.

A LITTLE KNOWLEDGE AND VIOLET POWDER.

THERE is a too ready habit of jumping to conclusions about the "causes" of things, more particularly those we deplore. It would be a misfortune if public opinion anticipated the result of pending inquiries as to the nature of the act by which arsenious acid found its way into the violet powder, the use of which has wrought dire mischief in so many families. We have nothing to say as to the cases *sub judice*, but in respect to the admixture of arsenious acid with dusting powder generally, there is too much reason to fear that the so-called "adulteration" has, in fact, in some instances at least, been suggested by a mistaken idea that the acid would act beneficially on the skin, and render the "powder" efficacious in cases of slight but chronic surface maladies. This was a serious error, and when it came to be reduced to practice the result proved to be not merely perilous, but inimical to the well-being of the public. Apart from the absurdity of supposing that so powerful a drug could be applied indiscriminately to such a purpose, there was the difficulty of mixing two powders of the same colour but of very different gravities. This last fact alone should have deterred the inventors of this special powder from carrying out their sinister thought; but a little knowledge is always dangerous, and not unfrequently does active mischief. We think it desirable to give this hint, because there is reason to fear that what is assumed to be "adulteration" may prove to deserve the graver description of reckless medication.

THE HEALTH OF LIVERPOOL.

IT is no slight triumph of sanitation that the health of Liverpool, despite its growth and its bad pre-eminence of being by far the most overcrowded town in Great Britain, materially improves, and seems to become year by year a less desponding problem. During 1877, according to the report of Dr. J. Stopford Taylor, the rate of mortality was lower than it had been for many years, excepting the year 1873. It was equal to 26·4 per 1000, the average of the previous ten years being 29·3 per 1000. The zymotic class of diseases was much less fatal. Thus, the number of deaths caused by it in 1877 was 2933, the average number for ten years preceding being 3919. Whooping-cough and small-pox excepted, which caused respectively 735 and 299 deaths, the other zymotics were much less fatal. There is reason to hope that this arises not from any accidental cause, but from the steady application of sanitary laws. One fact is very gratifying—the decline of deaths from continued fever and from diarrhœa, brought out in an interesting table giving the mortality from these diseases in each of the last twelve years. In the first six years of this period the average number of deaths from diarrhœa was 1054, in the last six 820. In the first six the average number of deaths from fever was 846, and in the last six 417.

The mortality from small-pox of the vaccinated and the unvaccinated presented in Liverpool, as it does everywhere, the most striking difference, being respectively 6·2 per cent.

and 45 per cent. Dr. Taylor very properly points out that as a very large number of vaccinated cases occur before sixteen, revaccination should be practised at a much earlier age. The slighter mortality extended to the tuberculous as well as to the zymotic class, the deaths numbering 1943 in the year instead of 2073, which is the average. Only cantankerous people will refuse to see in such improvement all round the reward of much good sanitary work. Of course the amount of work yet to be done would daunt all but those who have done so much. For example, the mortality in the district of Vauxhall is 37·2, while that of Everton is but 20 in the 1000. The obliteration of this difference between two districts in one town is to be accomplished, but it will need laws of a very different kind from any yet sanctioned by the Legislature, if, indeed, any laws which can be passed will do it. The report is full of interesting tables, some of them quite new, not the least of which is one explaining the work done by the port sanitary authority. Some of the tables will be much more valuable when the nosology is more definite: thus, the deaths from fever continue to be lumped together; 229 deaths are attributed to croup, which may mean either laryngismus stridulus, laryngitis, or diphtheria, to which 37 other deaths were attributed. Dr. Taylor would do a great service by inducing the medical men of Liverpool to be more precise in their very valuable death certificates.

THE GUMS IN LEAD-POISONING.

IT will be remembered that a few years ago Dr. Hilton Fagge described, in an interesting paper, the microscopical characters of the lead line on the gums, and its dependence on the deposit of black pigment in and around the capillary loops. The same facts were described, almost at the same time, by M. Cras in the *Archives de Médecine Navale* (Feb., 1875, and May, 1876), and further observations by him were submitted recently to the Société de Chirurgie. He has examined the line in portions excised from the gums of many patients, and found that it was easy to demonstrate the presence of lead in all the capillaries by the action of chromic acid. This stains the whole gum of a yellow colour, but the capillaries are distinctly marked by a much deeper tint, in consequence of the formation of chromate of lead. If now the section is washed in distilled water, and is treated with sulphide of sodium, the black tint of the capillaries is rapidly reproduced. Examination with high magnifying powers shows that the pigment is for the most part in the interior of the capillaries. M. Cras asserts that this line is not the only effect of lead upon the gums, and he describes another change antecedent to the lead line, and more constant, which he terms "saturnine gingivitis." The gums have two aspects—the one free in the mouth, covered with epithelium, the other adherent to the teeth and periosteum. These two surfaces unite at the narrow festooned border, which the epithelium covers as far as the place at which the gum adheres to the neck of the tooth by its periosteal surface. The interdental processes, which fill up the furrow between the gums and the teeth, present two surfaces adherent to the teeth. The capillary circulation of the gum is constituted by two plexuses: the one superficial, papillary, with fine vessels; the other, deep and periosteal. It is always the periosteal plexus which is the seat of the deposit of lead; the papillary plexus is normal. He asserts that every lead line is accompanied by a detachment of the gum from the tooth. On separating the loosened edge of the gum by a needle, a drop of pus, retained between the gum and the tooth, often escapes. The excision of the edge of the gum for examination is easy and painless, the interdental processes being especially convenient for the purpose. It will be seen, if the periosteal aspect is removed, that there, in the section, the line is replaced by a dotted area due to the black infiltration of the capillary loops. Thus, the line which is visible on the outer aspect of the gums is only the edge of the layer of blackened capillaries on the periosteal surface. The mechanism of the production of the line is, according to M. Cras, as follows:—First, by the chronic inflammation of the gum, the edge is separated, and in the space between the gum and the tooth organic matters accumulate. The sulphuretted hydrogen disengaged during the decomposition of these organic substances passes, as soon as produced, into the walls of the capillaries, and, acting in them on the metal brought by the blood, a deposit of sulphide of lead takes place in the capillary network. The gingivitis and deposit extending around the tooth often lead to serious consequences—retraction of the gum, abscess, &c. The production of this change is variable. The presence of tartar unquestionably assists its production. M. Magitot at the same meeting contested the opinion of M. Cras as to the seat of the deposit, asserting that it is placed invariably in the deeper layers of the epithelium of the gum, adjacent to the Malpighian layer of the mucous membrane, not in the capillary network; and urged that the deposit depends on the elimination of the lead by the saliva, and was precipitated by the effect of the sulphur in the tartar of the teeth.

THE SANITARY STATE OF CONSTANTINOPLE.

A RECENT number of the journal *La Turquie* gives a deplorable account of the sanitary state of Constantinople. It avers that the condition of the city as to unwholesomeness, instead of having become ameliorated since the termination of the war, has gone from bad to worse. Typhoid fever, exanthematic typhus, small-pox, and other epidemic maladies, which hitherto have principally prevailed in the districts to which the refugees from the seat of war have flocked, are now spreading in an alarming manner to other quarters of the city and suburbs. Thus in Pera there are numerous sick from the diseases mentioned, and especially from typhus. The same is true also of the villages in the Bosphorus, as, for example, Beshiktach, Ortakeui, Couroutchesmé, and Arnaoutkeui. Many quarters of the city and mosques are encumbered with refugees, the greater number ill and without medical aid. The regulations for the burial of the dead are imperfectly observed, and corpses are interred in shallow graves and barely covered over with earth. It is stated that it has become almost impossible on thi account to live in the vicinity of the cemetery of Edirné-Capou, so laden is the air with the effluvium of the putrefying corpses insufficiently buried there. The sea-shore and the shores of the Bosphorus are piled up with filth, and the smaller streets are almost impassable from accumulated refuse and carrion. The sickening odour given off by the astounding masses of filth, especially in some of the villages on the Bosphorus, is overpowering. The effects of the first heats of summer on the seething corruption in the streets of the city and suburbs, by intensifying the effluvia which arise from it, have been such as to occasion general alarm, and the representatives of the several European powers at the Porte have been urging upon the authorities the necessity of adopting some exceptional measures of cleansing if Constantinople is to be saved from becoming a veritable pest-focus.

TRICHINOUS HAMS.

PROFESSOR RICHARD HESCHEL, of Vienna, states that an examination of American hams recently imported into that city has disclosed the fact that a large proportion are infested with trichinæ. He adds, moreover, that several outbreaks of trichinosis, which have lately occurred in North Germany, have probably been occasioned by the consumption of these hams. The statement deserves the attention of medical

officers of health in this country, for we are given to understand that American hams are coming very largely into use in this country in consequence of their excellent quality, good flavour, and cheapness. It would be of great interest to learn to what extent, if any, these hams are infested with trichinæ. Although the almost universal habit of using ham here only in a cooked state affords a great safeguard against the development of the trichinæ in man—particularly if the meat be, as it should be, well cooked,—there is still a not inconsiderable proportion of the population, chiefly, perhaps, the German community in our midst, who use raw ham as an article of diet. It is desirable, in the interest of this part of the population, and of ham-consumers generally, that the degree of danger to which they may be exposed by the use of American hams should be ascertained as early as practicable. As we write we learn from a correspondent that at the present moment there is a large supply of tempting hams from Canada in the market.

HEALTH OF SHEFFIELD.

THE fifth annual report of Dr. F. Griffiths, medical officer of health in this borough, is eminently practical and very satisfactory. It shows a lower death-rate than has existed at Sheffield since 1861, when registration was first commenced. The decrease has occurred among persons of all ages and from all causes, and, as the author of the report observes, "the mere money value of the lives saved adds considerably to the natural wealth of the town." The saving of life, as is also pointed out, means a diminution of sickness and suffering and an increase in the vigour of the living.

In glancing over the report, we find that the health officer "is unable to obtain the number of vaccinations by private practitioners." The public vaccination here is, however, well performed, 6361 patients having been vaccinated by the public officers. An actual decline of 512 is observable in the death statistics, as compared with those of the previous year, and notwithstanding the great increase of late years in the population, fewer deaths were registered last year than in any year since 1867, that in 1877 being equal to 21·8 per 1000 of the estimated population, as against 24·8 in 1875, and 24·2 in 1876. Zymotic diseases and infant mortality both show well, and, as Dr. Griffiths very fairly remarks, afford the strongest presumptive evidence as to the improved sanitary condition of the borough. The report seems to indicate that there is some prospect of shortly obtaining a hospital for the reception of cases of contagious and infectious disease. In common with many other authorities, the corporation of Sheffield seems unaccountably obtuse on the mortuary question, and does not appear to see the necessity of providing a proper place for the holding of inquests. But, taking the report as a whole, and comparing it with many others that we receive, the Sheffield health officer is to be congratulated on finding that his energetic and by no means easy labours have brought forth successful and eminently tangible results, as Sheffield is not a facile place for the dispensation of sanitary enactments.

"GIVING UP" AND "LEAVING OFF."

THE number of *Punch* for the 15th inst. satirises in an amusing sketch the mania of the movement for "giving up" and "leaving off" everything—except some cherished object of delight. The crowning conclusion of a club colloquy on the fashionable self-denial is an intimation from one of the party that he has "a good mind to go in for that sort of thing, and give up everything but skittles." There is truth in the travesty. A wild enthusiasm seems to have been stirred by the denunciations of orators and scientists, and the discovery of unsuspected perils lurking in most of the habits and customs of life. It is becoming a serious enterprise to live, and "living to eat" has been changed back to the form of "eating to live" without regaining its innocence. What to eat and drink and wear, or rather what to *avoid* eating, drinking, and wearing, has become a question so engrossing that life is beginning to be a weariness, and the preservation of health a worrying toil. The policy of multiplying precautions until the enjoyment, the very purpose and tolerance of life, are destroyed by the cares of its maintenance, is not likely to advance the interests of public prudence. We must confess to a feeling of sympathy with the thought that inspired this not inopportune caricature in the leading satirist, and we venture to hope it may have its weight with those who are laying on the instinct of self-preservation a heavier burden than it probably can bear.

"SURGEON-DENTISTS" AND "DENTAL SURGEONS."

IF any proof were needed to convince those who are inclined to accept the provision for registering "dentists" in the Duke of Richmond and Gordon's Bill that this measure will *not* prevent the usurpation of medical titles, it would be found in the fact that, not content with describing the craft of the dentist as "dentistry," it is expressly called "dental *surgery*"! Surely this ought to be conclusive. The practitioner of an art designated dental surgery must be a "dental surgeon" or "surgeon-dentist." He can use which title he prefers; and the opposition to Sir John Lubbock's Bill having been abandoned, there is nothing to compel or induce the Government to make the measure sent down from the Lords more stringent. We must repeat the expression of our regret that, and inability to understand how, the recent warm agitation against the "Dental Practitioners Bill" has collapsed at the critical moment.

THE COLONIES.

WE have received lately from Berbice files of the *Royal Gazette*, a local journal that gives some particulars of an attempt now being made to appoint a lay inspector of public hospitals, in lieu of a professional inspector. As far as can be ascertained from printed reports, and from information that has reached us through another channel, the reform seems ill-advised, uncalled for, and, in many respects, analogous to the system that, until lately, obtained at the chief naval hospitals in England, but which the Admiralty have seen the wisdom of changing. The change was in every respect a true and useful reform, and we counsel the ruling powers at British Guiana, as well as those who are put in authority over them, not to alter a system that has been found to work happily at home.

A colonial correspondent has enclosed to us a somewhat voluminous detail of grievances, which even in abstract is far too lengthy to publish. The sum and substance of the matter is, however, to the effect that professional men who accept appointments under colonial governments are not sufficiently secured as to pension, or, indeed, any sort of financial *quid pro quo* if, from fortuitous circumstances, their respective appointments have, in the public interest, to be determined, or the terms thereof otherwise altered. Several cases of the kind have recently occurred, but this now before us is one that may be classed as typical. The surgeon of the hospital at Pernambuco having served in that capacity for seven years, and as dispenser for three years previously, is suddenly deprived of his income because the hospital has to be closed for want of funds. He obtained with difficulty certain arrears of pay, and, after several years of hard work, including an epidemic of yellow fever, appears to be turned off upon his own resources without any sort of pension or financial aid in the future. We assume that, except in certain cases, no regular scale of pensions is attached

to colonial medical appointments. It is known, too, that officers of this class, whether sent out under the auspices of the Colonial Office or of the respective agencies, are by no means well paid, and so, as a natural consequence, the service does not attract good men. There is, probably, no kind of medical work more important to all concerned than that performed by men holding office in our widely scattered cosmopolitan possessions. Such men are brought face to face with novel forms of disease, that have to be treated, as a rule, under very disadvantageous sanitary circumstances, but the immense scientific value of records in connexion with which can hardly be exaggerated. And so we very naturally suggest the great importance of organising a colonial medical service, which, if properly sketched out and administered by the Colonial Office and the agencies, should prove attractive to medical men, advantageous to all colonial residents, and very valuable as affording the means for founding a systematic record of maladies about which we now procure knowledge always fragmentary, and hence to a certain extent unsatisfactory. The demand for colonial medical officers is never at any time large, and the scale of remuneration would of course, under any circumstances, vary considerably. But from a practical as well as a scientific point of view, a cleverly organised colonial medical service would pay well, and, as we take it, the idea is worthy the attention of Sir Michael Hicks-Beach and his permanent staff at the Colonial Office.

INFANT MORTALITY IN WORCESTER.

No medical officer of health's report should be deemed complete which does not contain precise information of infant mortality, than which no better statistical test of sanitary condition is yet known. An oversight must surely account for the omission of reference to the high rate of true infant mortality in Worcester from the last annual report of the medical officer of health for that city. Reference to infant mortality does, indeed, appear in the report, but only to infant mortality measured by the proportion of deaths under five years to total deaths, which affords but an unsatisfactory and unscientific standard of measurement. By all but general agreement among authorities on vital statistics, the proportion of deaths under one year, to births registered, is now accepted as the most satisfactory standard for measuring infant mortality. Dr. Strange's report, however, gives no clue even to the calculation of this proportion, as the number of deaths under one year of age does not appear to be published. This is the more to be regretted since the true rate of infant mortality in Worcester has long been excessively high, calling for earnest local investigation. As the facts for the city are not available, we must content ourselves with those for the registration district of Worcester, the area of which, however, differs but slightly from that of the city. In 1877 the number of deaths under one year within the district was equal to 170 per 1000 births registered, and exceeded by 16 per 1000 the average rate of infant mortality in twenty of the largest English towns during the year; indeed, only in Liverpool and Leicester, of these twenty towns, was the rate of infant mortality last year so high as in Worcester. The rate of infant mortality varied very considerably in different parts of the city; in the west, north, and south registration sub-districts it was equal to 134, 169, and 199 per thousand respectively. Although the rate of infant mortality in the district was so excessive in 1877, the rate showed, as elsewhere, a decline from the rates in recent years; in 1875 it was equal to 207, and in 1876 to 191 per 1000. The rate of infant mortality in Worcester is not only excessive, but it has persistently increased in recent years. During the ten years 1851–60 it averaged 162 per 1000; in the following decade 1861–70 it increased to 170 per 1000; and during the first seven years of the current decade it has further increased to 176 per 1000. We commend these facts to the serious consideration of the Worcester Town Council, of their medical officer of health, and of the inhabitants of the city.

"DOURINE" OF THE HORSE.

ST. CYR, of the Veterinary School of Lyons, calls attention to a venereal affection of the horse of which too little notice has hitherto been taken by human pathologists. It is termed "Dourine" in France, and "Beschälkrankheit" in Germany. It was first described by von Ammon at Posen in 1796, and has since been frequently observed; and recently, as in 1850, a paper has been written upon it by Maresch and Röll, and in 1867 another by Pillwax and Maresch. The disease consists in swelling, œdema, heat, pain, itching, congestion, and increase of secretion of the mucous membrane of the vagina. Sometimes, also, a plaque-like, exanthematous eruption occurs, with dysuria, in the mare; and in the stallion the symptoms are—swelling, heat, pain, œdema, and flaccidity of the penis, with slight urethritis and dysuria, though the two latter symptoms are less constant than in the mare. A polymorphous exanthem sometimes appears on the penis and scrotum. The animals get thin and pass into the second stage of the disease. Whilst the local symptoms diminish the impairment of nutrition becomes more marked; the muscles, especially those of the posterior extremity of the body, attenuate and tremble; the animal limps; the joints swell, though the swelling sometimes soon disappears, and paresis or paraplegia of the lower extremity occurs. Sometimes rounded tumours (? œdema) show themselves at various points beneath the skin, not painful, and disappearing in a week or a fortnight. In the third stage abscesses form, with sores, ozæna, and enlargement of glands. The disorders of nutrition progress, and the animal dies from exhaustion or from hypostatic pneumonia. The disease may either be acute or may last for two years.

DIPHTHERIA IN NORTH-WEST LONDON.

THE last-published weekly return of the Registrar-General shows a distinct diminution of the mortality from diphtheria in North-west London. During the week ending the 8th June, no deaths from the disease were recorded in Hampstead, and four were recorded in Marylebone, the numbers of deaths during the preceding week being respectively four and six. The total number of deaths registered from diphtheria in the metropolis in the week ending the 8th June was sixteen, as compared with seventeen the preceding week. The deaths were scattered generally throughout the metropolis, the largest number occurring in any one district being in Marylebone (four).

Much alarm still prevails in the North-west districts as to the disease, and a general belief exists that its extension has not yet come to an end. We hope, however, that the Registrar-General's returns just referred to may be taken as indicating that the outbreak is beginning to decline. Mr. W. H. Power is actively pursuing his investigation for the Local Government Board, and Professor Huxley, who lives within the infected district, has been actively promoting the inquiry and the preventive action of the local authorities. The familiar proverbial saying of "seeking a needle in a bundle of straw," we fear, too aptly applies to Mr. Power's work. There is no such clear clue for guidance in investigations of outbreaks of diphtheria as in outbreaks of typhoid fever, and much of Mr. Power's work must be a groping in the dark. All the difficulties of such investigations are augmented to the utmost in the metropolis. The vast population to be dealt with, even in limited districts, and the extent of ground occupied, make it extremely difficult and often impossible to get at complete facts. We have

great faith, however, that the inquiry will not prove barren in Mr. Power's hands.

SICKNESS IN THE RUSSIAN ARMY.

A RECENT communication made to the Russian Red Cross Society by M. Panioutine, its general delegate to the Army of the South—that is to say, the army on the Danube and in Bulgaria—shows that a great amount of sickness has been, and still continues to be, prevalent among the troops south of the Balkans. The army passing to the south of the Balkans moved so rapidly that the bulk of its medical stores and comforts, whether belonging to the Red Cross Society or to the military service, were necessarily left far in the rear, and before they could be got forwards to the troops, sickness had increased so much that the invalids could not be provided with bedding, or even the most essential medical necessities. Although this extreme impoverishment in supplies is now in a measure abated, the distance of the army from the Danube appears to impose a great obstacle to the proper furnishing of hospital requisites, although the Red Cross Society and the military medical staff are working together in complete accord. At Adrianople for a time 500 sick presented themselves daily at the Red Cross station alone. In Philippopolis the number of sick was greater than at Adrianople. The Red Cross Society furnished to Adrianople alone 6000 mattresses for the sick, with 6000 changes of linen, and 1500 coverlets. At the time of M. Panioutine's communication, three physicians, three assistant-surgeons, and thirteen sisters of charity, all of the staff of the Red Cross Society, were confined to bed with sickness, much of this arising from overwork.

SANITARY REPORTS.

DR. J. A. KENYON has just presented reports to his committee as to the sanitary condition of the urban and port districts of Chester. From the former of these it appears that the death-rate during the past year was 21·93 per 1000, that only six (or seven) cases of small-pox have occurred in the district, the fever hospital having afforded a means of prompt isolation. No less than 350 waterclosets have been substituted for the previously existing midden closets, some important works for the ventilation of the town sewers are nearly completed, and altogether the inhabitants of the city of Chester are to be congratulated on the progress made in view of the prevention of disease. The port sanitary notes recite that 761 vessels entered (or, rather, that 761 were entered by the Customs) during the year; 750 were coasters. The cargoes are epitomised, and Dr. Kenyon appears to have framed his mode of work, as far as practicable, in accordance with that adopted in the port of London. As he remarks that coasting vessels require more care than ocean-going ships, some provision should be made for their systematic inspection, as soon as possible after arrival; and this evidently is not done. A small hulk, or a port hospital close to the bank of the river, should undoubtedly be provided for cases of infectious disease as well as of cholera. There are several outline sketches of floating hospitals in the first report presented to the Corporation of London by the Port of London Sanitary Committee, a study of which might be useful to the Chester authorities. The chemistry of Dr. Kenyon is loose, and we recommend him, in future operations, to employ an analyst.

Mr. John Liddle, medical officer of health for Whitechapel, has recently presented his report for the quarter ending the 31st of March of the current year, the chief noteworthy aspects of which are the remarks about the small-pox epidemic. The author very naturally continues to urge upon his authority the importance of making it a legal obligation on the part of some person to acquaint the local sanitary authority of every case of infectious or contagious disease of which such person may be cognisant. In connexion therewith, Mr. Liddle records that as late as 1814 (i.e., within his own personal experience) the visits o women called "searchers" were permitted whenever a death took place, "whose duty it was, not only to see the corpse, but to see that it was covered with a woollen dress. This law was enacted in the reign of Charles II., with the object of encouraging the woollen trade, but was repealed in 1814 so far as related to the corpse being bound in woollen; but the visits of the searchers were continued for several years afterwards, for the purpose, as was alleged, of ascertaining the fact of death." If searchers could be tolerated, as Mr. Liddle remarks, why not a medical officer of health? The mortuary question is again urged upon the attention of the board, as well as the importance of providing a suitable place at which to hold inquests.

THE USE OF THYMOL IN SURGERY.

THE employment of thymol as a substitute for carbolic acid in surgical dressings is a natural consequence of the discovery of its greater antiseptic and less septic power. A lecture on the subject has been published in Volkmann's series by H. Ranke, of Halle. The solution used instead of the 3 per cent. solution of carbolic acid consists of one part thymol, ten parts of alcohol, twenty of glycerine, and a thousand of water, and can be employed as either a spray or a solution. An impregnated gauze is also used. Since thymol does not irritate the wounds, the gauze may be laid directly upon it; otherwise the same method is employed as in Lister's plan. If the gauze becomes hard and dry it may be moistened once or twice a day with thymol water. In order to prevent the evaporation of the thymol from the dressing, the gauze is covered with oiled paper. From an experience of forty-one wounds dressed with thymol the lecturer concluded that the method leaves nothing to be desired as to its antiseptic effect, and that it answers better than the carbolic acid dressing, since the secretion from the wounds is less, the period of healing shorter, and the cost of the dressings is smaller. Further, it has no poisonous properties, and eczema was never observed in its use.

THE MERCHANT SEAMEN'S BILL.

THIS Bill, having been before a Select Committee, was the subject on Monday of a question by Mr. Gourley, who elicited from the President of the Board of Trade that it was not intended to proceed with the measure this session. This is, so far, a matter for congratulation, in that an opportunity will be given next year for the introduction of some scheme requiring the medical examination of seamen before signing articles. We have strongly insisted on the expediency of some such arrangement, believing that it would be acceptable to the shipowner and the shipmaster, and tend in a material degree to promote the safety of seagoing craft of all classes. The Board of Trade have always indicated their willingness to introduce or assent to such a clause, but there seems to be a tacit but obstinate dispute as to who should pay for the cost of inspection. As its utility is acknowledged on all sides, the removal of this obstacle next year ought not to be difficult.

HEALTHY HOUSES.

THE Manchester and Salford Sanitary Association, taking example apparently from the movement in Edinburgh, has made arrangements for a sanitary inspection department, with the object of providing for the members, at a moderate cost, such advice and supervision as may ensure the proper sanitary condition of their own dwellings; and further, may enable members to procure practical advice, on moderate

terms, as to the best means of remedying defects in houses of the poorer classes, and any other premises in which they are interested. Persons may become members of the department upon payment of an annual subscription of £1 1s., occupiers of houses of over £50 and under £100 rental being required to pay £1 1s. extra, and occupiers of houses of £100 and upwards £2 2s. for the first year. The Society proposes to appoint one or more sanitary engineers for the purpose of inspection and reporting, and to have inspected the premises of members, with a report prepared thereon, once yearly, in addition to promoting the general sanitary advantages which have been stated. We wish this promising project every success.

THE HARVEY TERCENTENARY FUND.

A SATISFACTORY meeting of the subscribers to this fund was held at the College of Physicians on Tuesday last, the President, Dr. Risdon Bennett, in the chair. Mr. George Eastes, M.B., read the report, showing that of £1680 promised, £1388 had actually been received. The object had secured practical help from the public, the profession, the College of Physicians of London, the College of Surgeons of England, the Faculty of Physicians and Surgeons, Glasgow, the Medico-Chirurgical Society, and other societies. The most important business transacted was the nomination of a committee of about ten to choose a sculptor to whom the execution of a statue to Harvey shall be entrusted, to cost about £1700. Money will still be wanted, but it continues to come to hand. The expenses are, of course, considerable. Further subscriptions will be thankfully received by the treasurers, Sir George Burrows, Bart., or Mr. Prescott Hewett, or by the indefatigable honorary secretary, Mr. George Eastes, to whom a vote of thanks was proposed and adopted.

THE THERAPEUTIC VALUE OF THE MONNINIA POLYSTACHIA.

IN the fourth number of the Portuguese journal, *Estudos Medicos*, which has just been started, and which, though small in size, is well conducted, is a short article by Dr. J. L. Magalhaes Ferraz on the action of the Monninia polystachia. This is a South American plant, widely distributed, growing near the summits of high mountains, in sandy plains, and in marshy districts. It is of elegant form, with a root extending to a length of eighteen inches, of yellow colour, with dusky spots, disagreeable odour, and taste at first sweetish, but subsequently becoming acrid and bitter, and exciting salivation. The parts employed are the recent leaves and the bark of the root. There appear to be several resinous substances in the plant, one which can be extracted with ether, another with alcohol, and a third which appears to be of the nature of a gum resin.

THE LONDON SMALL-POX EPIDEMIC.

THE 24 deaths referred to small-pox in London during the week ending last Saturday were fewer than in any week since the middle of November last, and were 18 less than the number returned in the preceding week. Judged, however, by the admissions to the small-pox hospitals, the prospect of a speedy decline of the epidemic is not so favourable. The number of small-pox patients in the Metropolitan Asylum Hospitals, which in the seven preceding weeks had steadily declined from 854 to 558, further fell, it is true, to 529 during last week; but the number of new cases admitted, which had been 170, 126, 108, and 84 in the four previous weeks, rose again to 100 last week.

Of the 24 fatal cases of small-pox in London, 11 occurred in the Metropolitan Asylum Hospitals, and 13 in private dwelling-houses; of the latter, 5 occurred in St. Paul, Deptford, registration sub-district, in which is situated one of the five Metropolitan Asylum Hospitals receiving small-pox patients. In 8 of the 24 fatal cases last week, of which 7 occurred in private practice, the certifying medical practitioners, reports the Registrar-General, omitted to give any information as to vaccination. The case is quoted of the death of an unvaccinated infant aged eight months from small-pox in Islington, vaccination having been deferred on the authority of a medical certificate that the health of the infant rendered it unfit for the operation. The responsibility incurred by granting a certificate of unfitness is manifestly increased in epidemic seasons.

Outside registration London 4 fatal cases of small-pox were registered last week, of which 2 occurred in West Ham, and 1 each in Stratford and in Bromley (Kent) sub-districts.

THE FATHER OF THE "NON-RESTRAINT" SYSTEM IN ENGLAND.

TO Mr. Gardiner Hill, whose death we recorded in our issue of the 8th inst., must be assigned the dignity of father of the non-restraint system of treating lunacy in England. Dr. Charlesworth, to whom the credit of first abolishing restraint has been given, rather permitted than conducted the practice carried out by Mr. Gardiner Hill at the Lincoln Asylum. This is apparent on the face of the Asylum Reports. The honour due to Mr. Gardiner Hill's memory should not be reduced by mistake.

A LETTER, signed "X," appears in the *Royal Leamington Spa Courier* complaining, very properly, of the course taken by the coroner in reference to the death of Job Gilbert, of Stratford-on-Avon, found comatose in a loft with doubtful indications as to the immediate antecedents of the coma. There were bruises and blisters about the man which it was impossible to account for. On the facts being reported to the coroner, he said he did not think an inquest necessary. "X" does not much blame the coroner, but extenuates his conduct by ascribing it to fear of the magistrates, and doubt whether they would allow the fees, &c. &c.

WE have received during the past week a copy of the *Sheffield Telegraph* containing the detailed account of a meeting of the Corporation, in which the conduct of a medical officer of health was discussed. It is impossible, from the report given, to arrive at an accurate estimate as to the merits of the question; but when other particulars are before us, it will be our duty to review a discussion that has very serious aspects for all who hold responsible appointments under sanitary authorities, whether urban or rural.

A BAZAAR was held at Keith, Banffshire, on the 11th and 12th inst., for the purpose of supplementing the funds already subscribed to erect a cottage hospital there. Professors Struthers and Stephenson, of Aberdeen, delivered opening addresses, which were attentively listened to by large audiences. The sum of £950 was realised, which, with former subscriptions, brings the amount available for building and endowment to upwards of £2000.

WE have to record the death of Dr. C. Pope, of East Harptree, Somerset, which took place on June 4th, at the age of seventy-seven. He was dresser under Sir Astley Cooper in 1823; went twice to India; was a good operator; and resided for years at Temple Cloud, where his practice was extensive as a union and club surgeon, &c. He was generally beloved amongst the poor and by all who knew him.

MR. RICHARD DAVY has resigned the post of surgeon to the Surgical Aid Society.

ABSTRACT OF SIX LECTURES
ON THE
DIAGNOSIS AND SURGICAL TREATMENT OF ABDOMINAL TUMOURS.

Delivered at the Royal College of Surgeons,

BY T. SPENCER WELLS, F.R.C.S.,
HUNTERIAN PROFESSOR OF SURGERY AND PATHOLOGY.

THE first lecture was delivered on Monday, June 10th, at 4 P.M. The lecturer entered at considerable length into the mode of examining patients with abdominal tumours, describing in detail the methods of external, internal, and combined examination, and showed his form of note-book for recording cases. He described the mode of distinguishing collections of fluid in the abdominal cavity from collections in cysts, and illustrated, from preparations in the museum, ovarian, renal, and hydatid cysts.

We give the following remarks on combined internal and external examination of the abdomen and pelvis:—

"With the thumb in the rectum and the forefinger in the vagina we can often get an accurate notion of what may be contained in Douglas's pouch; or, on the other hand, if the thumb is on the cervix uteri and the forefinger in the rectum, it is quite easy to feel a considerable part of the uterus, even to the fundus, and so get a notion of its size and form, or of anything attached to its exterior, either in front, behind, or at the fundus.

"Simon, of Heidelberg, laid great stress on the combined examination of the bladder and uterus after dilatation of the urethra, believing that this was not only useful in completing diagnosis of disease of the bladder itself, but also for examining growths in the vesico-uterine pouch, tumours on the anterior surface of the uterus, or on either side of the pelvis, where they extend forwards. Combined examination between the walls of the abdomen and the bladder may occasionally become necessary. In some forms of uterine disease combined examination may be assisted by previous dilatation of the neck of the uterus with a sponge tent; and in other cases, where examination by rectum alone, or combination of rectal and external examination, may be insufficient, as in inversion of the uterus or congenital absence of this organ, combined examination by bladder and rectum, either by finger in rectum or sound in the bladder, or finger in bladder after dilatation of urethra, gives all the information required; but this seldom can be necessary, except in cases of atresia of the vagina.

"As Hegar has pointed out, if the thumb of one hand in the vagina fixes the vaginal portion of the cervix uteri, the index-finger of the same hand in the rectum can not only feel the posterior surface of the uterus distinctly, but can follow the sacro-uterine ligaments; while, if the other hand presses the abdominal wall backwards towards the sacrum, a very accurate idea can be obtained of the relations of all the pelvic organs. The uterus can be moved in various directions, and anything between it and the bladder or rectum is distinctly felt, supposing of course no extraordinary amount of fat in the abdominal wall, nor any peculiar rigidity in the vagina, interfere. Flexions of the uterus are thus very accurately recognised, and often replaced easily.

"These examinations must be carried on, sometimes with the patient on her back, sometimes on her side, and sometimes in both positions, and occasionally in the knee-and-elbow position, with the shoulders low, a change of position of the organs giving information otherwise unattainable.

"Simon lays great stress on the fact that when a patient is deeply narcotised the whole hand may be passed into the rectum. I have done this occasionally, but have not obtained much additional information than is given by one or two fingers.

"Hegar deserves the credit of introducing a method of examination which, in some cases, is really of very great value. He fixes the vaginal portion of the cervix uteri by a pair of long hooked forceps, by which the uterus may be drawn downwards or on either side. The same object may be obtained more safely by one of Marion Sims's hooks, and there can be no better method of clearing up doubts about the size and position of the uterus, its connexion with neighbouring organs, and especially its relation with abdominal and pelvic tumours.

"I need not say that this must all be done with due care; that no forcible traction upon the uterus must be exercised, and that steadying the organ will often be found quite enough.

"Suppose the uterus thus fixed and gentle traction made upon it with one hand, and one or two fingers of the other hand are passed into the rectum, the posterior surface and sides of uterus are felt, and, if necessary, the finger may be carried over the fundus. Sometimes the forceps or hook may be given to an assistant, while one or two fingers of one hand in the rectum and the other on the abdominal wall effect a combined examination of the most complete character. The connexion of the abdominal tumours with the pelvic organs may be very accurately made out. A slight pull on the uterus may be sufficient to clear up any doubts as to the connexion between the uterus and the tumour, while the pedicle or membranous adhesions with the rectum may be made tense and felt.

"Supposing a tumour is partially or entirely in the pelvis, in more or less close apposition with the uterus, by drawing the uterus downwards or forwards on to one or other side, the examining fingers in the rectum may follow the outlines of the tumour and notice how its movements are affected by the movements of the uterus, or if it may be separated from the uterus. It is by no means unfrequent that you can separate the uterus from a tumour where previously there had seemed to be intimate connexion, or union apparently inseparable. The assistant drawing down the uterus or to one side, with two fingers in the rectum and the other hand over the abdomen, pushing up the tumour, we may often get an idea of the length of the pedicle, and in reference to uterine fibroids information as to the possibility of removing them. You find out the length and thickness of the cervix, whether it is fixed or movable, and whether it is involved in the new growth. You pull, as it were, the neck of the uterus out of the mass which in a measure involved it, and this shows the tumour to be a growth which may be removed."

The lecturer then described the chemical character of fluids removed by tapping in ascites and in ovarian cysts, reserving the microscopical characters for the second lecture.

In the second lecture, delivered on Wednesday, June 12th, Mr. Wells described the microscopical elements found in ovarian fluids, dwelling especially on Drysdale's granular ovarian cell, and on certain groups of large pear-shaped vacuolating cells observed in peritoneal fluid in cases of cancer of omentum and ovary. The remainder of the lecture was occupied by the demonstration of specimens from the museum, to illustrate the diagnosis of different forms of multilocular, dermoid, and solid ovarian tumours, from the various abdominal tumours for which they may be mistaken. Very interesting specimens of splenic tumours removed during life by the lecturer were shown, large tumours of the kidney and liver, a large gall-bladder with thick walls, hydatids of the omentum, aortic aneurisms, false cysts formed by adhesions the result of chronic peritonitis, numerous specimens of intra-abdominal cancer, extra-uterine pregnancy, and tumours of the abdominal wall. The very rich collection of uterine tumours in the museum was reserved for the last lecture of the course.

THE PARIS EXHIBITION.

(By our Paris Correspondent.)

II.—THE CITY OF PARIS.

IN my first article I gave a general description of the Exhibition, its architectural features, topographical arrangements, and sanitary aspects. I now propose to give an account of the collective exhibition of each country before proceeding to a comparative notice of the same group of objects displayed by the various nations represented at the Exhibition.

And to begin with, I cannot do better, both as a matter of duty and of pleasure, than to devote this article to the City of Paris. Situate in the very centre of the Champs de Mars Palace, between the French section on the one side and the foreign section on the other, stretching out as it were a friendly hand to each, La Ville de Paris has a special pavilion of her own, in which she has gathered all the various features and manifestations of the five great branches which

constitute her rather complex administration, and the active working of which combines to render her a city of extraordinary interest and elegance.

The five great branches or "Directions" to which I have referred comprise (1) the Direction of Fine Arts and Historical Works; (2) the Direction of Architecture and Municipal Buildings; (3) the Waters and Sewers of Paris; (4) the General Administration, including the Préfecture de Police and the Assistance Publique; and (5) the Direction of Primary Education. The first of these Directions is under the able presidency of M. Michaux. Since the death of the regretted M. Belgrand, the two Directions of Architecture and Waters have been entrusted to M. Alphand, who enjoys an unequalled reputation in Paris for taste, ingenuity, and competence in plastic arrangements. M. Albert Gigot directs the Préfecture de Police, whilst the Assistance Publique is now under the liberal and skilful management of M. Michel Moring. The important department of Primary Education is headed by M. Gruyer, member of the French Institute. Each of the Directions has a special display in the pavilion of La Ville de Paris.

Both ends of the pavilion are occupied by the Fine Arts department. This includes the works of departed masters as well as of renowned living artists, and the walls are hung with pictures of Bonnat, Boulanger, Cormon, Delaunay, Flandrin, Fleury, and others. All these works of art, as well as the statues scattered in the neighbouring grounds, are the property of the city of Paris, which buys them from the artists and lends them or gives them in keeping to the churches, the municipal buildings, the theatres, or squares of the city for the purpose of decorating them, but can withdraw them whenever it likes for exhibitions or other occasions. Though many of these artistic productions might, on account of the subjects which they represent, well deserve a passing notice from a medical pen, I shall content myself with admiring them, and pass on to the section of Architecture, where we find plans, drawings, and models of much special interest to us, as a great many of them represent the new Hôtel Dieu, the future School of Medicine of Paris, the contemplated Clinique d'Accouchements, the model prison or house of repression at Nanteue, the recently constructed slaughter-houses of La Villette, the ventilation of new schools, mairies, and theatres, the Hospital of Ménilmontant, in which the director of the Assistance Publique takes great pride, &c. But even here we need not be detained, as the future excursions of the Congress of Hygiene, which is to meet in August, will allow me to give practical and much more interesting descriptions of all these buildings. I may just say that the architectural exhibition is very complete, and does credit to the organisers of this department of the pavilion.

With the departments of the General Administration we come to subjects of intense interest to the profession. M. Albert Gigot has had the most praiseworthy and happy idea of exhibiting in its real and practical shape a complete specimen of the huts for the drowned, established about five years ago on the banks of the Seine, and of which I gave an account in this journal at the time of their initiation. Nothing is wanting to realise the complete picture of these invaluable huts, the usefulness of which has been proved by the lives of hundreds of people saved since their establishment. The room is exactly similar. There are the bed and mattress; here are the tub and the hot water apparatus; on the table the box of medicaments and the *appareil à fumigation;* nay, there is the *sergent de ville* himself, such as he is to be seen in the huts along the Seine, only instead of resuscitating the drowned man, he is giving a picturesque description to a large number of people, who are listening attentively, and imbibing, it is to be hoped, valuable rules, which will not be forgotten in moments of emergency. He is showing them how the bed consists of a large hollow metal mattress filled with water, kept very hot by gaslights underneath; whilst another, a woollen, mattress is placed on the top of this, and how the drowned man is to be warmed. He points to the tub with the spouts of hot and cold water, and says how and when the douches are to be used. He winds up with a description of the rules and means which one can always apply for resuscitating the drowned, even in the absence of this improved apparatus, and directs them to read the code of precepts hung up on the wall, which they do when they can understand the language.

Another most interesting part of M. Albert Gigot's department consists of the fire-engines and pumps, and altogether the various apparatus employed by the famous firemen or *sapeurs-pompiers* of Paris. The Parisian population take especial interest in the visit to this section. They are extremely proud of this corps of *sapeurs-pompiers*, who render invaluable services in more than one way.

In this Exhibition of the City of Paris, so full of sanitary aspects, and which attracts a large crowd anxious to study its various features, the Assistance Publique, or general administration of the Paris hospitals, occupies a very prominent part. The Assistance Publique has two pavilions, in which it has collected the most interesting specimens of its various economical arrangements or historic records. In one of these pavilions is a glass press, the contents of which would delight and absorb the attention of an antiquarian for more than a week. It contains the most venerable documents of the Hôtel Dieu, going back to the twelfth century, with the coloured parchment account books of the pilgrims of St. Jacques, and other manuscripts of the highest historical value. Here are also to be found the uninterrupted annual series of account and budget books of the Hôtel Dieu, and other hospitals through ages down to our time. Near this press is a case containing the surgical instruments which belonged to the great Dupuytren, the surgeon to the Hôtel Dieu. Indeed, almost the whole of this pavilion, with the exception of a few things, is consecrated to the history and glory of the Hôtel Dieu. The walls are hung with pictures of its various appearances and changes since its earliest foundation, and with plans of the new building which has replaced it.

The other pavilion is a typical reproduction of the wards of a Paris hospital, or at all events of the arrangements concerning each patient in a ward. Here is the bed with the curtains, which are now given up entirely in England and in other countries, but are still in favour here. However, if I understand aright M. Michel Moring (the Director of the Assistance Publique), a plan of movable *paravents* will be tried, as a substitute for curtains, in the new and model Hôpital de Ménilmontant. Here is the *pancarte*, or bill, stuck up at the foot of the bedstead—the horrible *pancarte*, for which there is no excuse, and on which are related in full detail the name, religion, age, and disease of the patient. Here also are to be seen the typical specimens of mattress, bedding, chair, table, utensils, and, in fact, everything employed for each particular patient in the Paris hospitals; not to mention the surgeons' cases of instruments, the table, stretchers, &c. In a word, the object of the Assistance Publique is to give the visitor a correct idea of what is to be seen in a hospital ward.

Between the two pavilions is a very perfect model of the lying-in pavilion, which has been built up at the lying-in hospital according to Dr. Tarnier's plans, and which is commonly known as Dr. Tarnier's "Model Pavilion." It consists of a ground-floor and first storey, each containing four bedrooms, which have no communication between themselves, and all open from the outside. In the centre of the rooms is an office looking upon the four apartments by means of a glass pane, so that a single person can exert supervision over the four rooms.

Between the two pavilions are likewise to be found extensive views and plans of the new Hôpital de Ménilmontant and the Maritime Hospital of Berck-sur-Mer. These are worthy of particular attention. The Hôpital Ménilmontant is intended to be a model hospital, with all the most recent improvements in hospital hygiene, whilst Berck-sur-Mer is a realisation, and a most successful one, in France of the maritime hospitals which are extensively used in Italy for scrofulous children, and constitute the treatment *par excellence* of scrofula and rickets.

The Direction of the Sewers and Waters of Paris has also been very successful in getting up a most valuable exhibition in this pavilion of the city. Models of everything relating to the sewers of Paris, which are accounted so perfect in their architectural arrangements, and are visited with intense curiosity by all who come to Paris, have been carefully gathered and exhibited here. The little models of the large and small collectors and pipes built with railways, and intended to be swept and kept clean by sweeping-vans, are exceedingly perfect. So also are the models of all the trucks, the vans, the railway cars, and boats which are used for floating on the sewer waters or gliding on the rails, and are elaborately and ingeniously contrived for the purpose of visiting, repairing, or cleansing the pipes.

Another important part of this exhibition is the one intended to show the utilisation of sewage. This occupies

one half of the gallery running round the pavilion, and facing the Foreign Section. Here are brought every day the huge cabbages, potatoes, and artichokes grown in the *plaines* of Gennevilliers. Specimens of flourishing thyme, sage, aniseed, and angelica are also exhibited fresh, and a one-year poplar of surprising growth dominates all this vegetable kingdom. These various productions of a soil of exuberant fertility come from a place where formerly all cultivation was unknown on account of the barren sandiness of the soil. Everything that can illustrate this system of utilisation is shown in maps, models, or original specimens. The works established for the construction of the pipes are represented. So also the forcing-pumps. The fields of Gennevilliers are represented in a large model, with the trenches, the pipe orifices, the irrigating tubes, &c. Conspicuous on a shelf are three bottles—one containing the thick, greasy stuff called *eau d'egouts*, or sewer-water, such as it is brought to Gennevilliers; the second, clear transparent water which collects at a certain distance below the surface of the soil after having filtered through the sand, and then returns to the Seine; and the third, the residue of this filtration, which subsides in the trenches in the form of a peculiar sand.

This Direction has had the felicitous idea of exhibiting elsewhere a complete and graphic description of all the great works which have been undertaken for the purpose of bringing the pure water of the Dhuys and the Vannes from hundreds of miles into the capital, so as to supply its inhabitants with a perfect and reliable type of potable water. About one-half of Paris is already provided with this inestimable boon, which will soon be conferred on the other half; and it is really quite a relief to the visitor of this pavilion, after he has examined the admirable sewer arrangements of Paris, and the wonderful results of sewage at Gennevilliers, to go and dream of pure air and water before the views of the green valleys of Dhuys and Vannes, the aqueducts through the forest of Fontainebleau, and other pleasant aspects of water collection and distribution.

Before leaving this pavilion, so full of interest to a visitor concerned in hygiene, I must at least make a passing reference to a very complete model, exhibited, I think, by M. Alphand, and showing all the arrangements of a portion of the Boulevards. Everything relating to a house and street, the sanitary arrangements, the getting and distribution of air, light, and water, are shown with wonderful precision and correctness. This corner is invariably crammed with an eager crowd, and I do not remember ever having seen a more perfect, and, I think, useful description of the arrangements of a house and the part played by air, light, and water in human existence.

Correspondence.

"Audi alteram partem."

THE TREATMENT OF POST-PARTUM HÆMORRHAGE BY HOT WATER.

To the Editor of THE LANCET.

SIR,—In the paper which I read before the Dublin Obstetrical Society in December last, on the use of hot water in post-partum hæmorrhage, an abstract of which subsequently appeared in THE LANCET, I stated that I was induced to adopt the practice in consequence of the representations of Dr. Whitwell, of San Francisco. I have since received the accompanying letter from him, which you may think worthy of publication. Its perusal may perhaps induce others to give the treatment a trial. For myself, I can say that I consider hot water injected into the vagina at a temperature of 110° to be a most efficient method of checking post-partum hæmorrhage, and that it is now carried out as a routine treatment in all suitable cases in this hospital.

I am, Sir, your obedient servant,

LOMBE ATTHILL, M.D.,
Rotunda Hospital, Dublin, June 3rd. Master of the Hospital.

San Francisco, California, March 6th, 1878.

MY DEAR DOCTOR,—You ask for some information concerning the use of hot water in post-partum hæmorrhage.

While in the Woman's Hospital of the State of New York during the winter of 1874–75, in the position of house-physician, I saw in the service of Dr. Emmet the hot water vaginal injections used to great advantage in all pelvic inflammations. It was also customary to order these injections for patients who were to undergo any operation about the vagina, that the tissues might become blanched and contracted, and thereby firmer. But on one occasion I had the good fortune to see the almost instantaneous effect of hot water in controlling hæmorrhage in a case calculated to try its powers to their utmost. The patient, a weak and very anæmic woman, had a tumour at the fundus of the uterus, which caused almost continual loss of blood. This, which afterwards proved to be a sarcoma, was partially removed by the scissors, the operation being then suspended on account of severe hæmorrhage. The patient was immediately turned on her back, and water at about 110° was injected to the fundus by means of a Davidson's syringe. After the first few syringefuls, the water came away clear, and there was no subsequent loss of blood. One drachm of Churchill's tincture of iodine was then thrown to the fundus, and the vagina carefully tamponed with cotton, which when removed showed merely a staining with iodine. I believe that Dr. Emmet's idea in using the hot water was to cause contraction of the womb, and so partially control the hæmorrhage, but that his main reliance was placed upon the iodine.

A short time before this I had heard Dr. Trask read an able paper on the dangers of perchloride of iron, and the use of iodine as a substitute, in cases of post-partum hæmorrhage. The case above cited and this paper fresh in my mind suggested to me the use of hot water in similar cases.

I had no knowledge of hot water having been used by anyone up to this time in cases of post-partum hæmorrhage; cold, on the contrary, being advised by all teachers and text-books on the subject.

My first opportunity to test its efficacy was at Breslau in August, 1875, when, through the kindness of Dr. Landau, the assistant at Professor Spiegelberg's clinic, I was allowed to accompany him to a case to which he had been called. He found that the hæmorrhage was internal, and that the fundus was high above the umbilicus. The uterus was cleared of clots, and hot water injected as best we could with the imperfect means, an immense German syringe, that we had at hand. However, contraction took place so rapidly after the first injection that the midwife spoke of it, although she did not know why the *hot* water was being used. The womb remained firm and contracted. Two other cases proved to Dr. Landau its applicability, and at the annual meeting at Gratz in September he spoke enthusiastically of this line of treatment. He was told that it had been discarded long ago.

My next opportunity occurred in the service of Professor Brisky, in the Lying-in Hospital at Prag, where my statements were received with considerable incredulity by the assistant, and it was with some difficulty that I could induce him to use the water hot enough, he being fearful of burning the patient. The first case was a success, and since that time it has been thoroughly tried and accepted as the best treatment, and a large number of cases have been reported. Favourable reports also come from Berlin, and trials are being made in Strasburg, so that I was a little surprised to see that the use of that dangerous agent perchloride of iron is still advocated, and that hot water is not even spoken of.

In only one case have I found the uterus failing to contract almost instantaneously. After performing craniotomy, wishing to wash out thoroughly, and also to cause rapid and fair contraction, I passed my hand with the syringe into the uterus. I was a little startled, after injecting a moderate amount of water, to find that I could not touch the sides of the uterus. Fearing that I had failed, I was withdrawing my hand, when the water gushed out, and the womb had contracted firmly. It was then apparent that my wrist had prevented the return of the water by obstructing the cervix, and that the uterus had in consequence become dilated.

Would it be possible in a case of transverse presentation, the liquor amnii having come away, to render the turning easy by the replacing of the amniotic fluid by warm water?

I shall be much pleased and deem it a favour if I hear from you with what success you meet, for it is an important subject, and I feel sure that hot water must soon supersede all drugs and medicated injections, being superior to them all in many important particulars.

1. It is easily attainable at all times.

2. It is absolutely safe, if care be taken to exclude air from the syringe.

3. It stops hæmorrhage, not by artificial plugging, but by causing a natural contraction of the uterus.

4. It is cleanly, and a disinfectant, such as carbolic acid, can be easily added.

5. By imparting heat, it rallies the exhausted patient, and gives power to the muscles for contracting, instead of, as is the case with ice, abstracting what little heat remains, and so benumbing and paralysing them.

Can more be required of an agent? It is my practice to have a syringe and hot water always on hand. In case of hæmorrhage the water is used as hot as can be borne by the hand. If, however, all goes well, a vaginal bath is given at 100° F., and continued for several days night and morning. A few drops of the strong impure carbolic is added to the water as a disinfectant. This bath always soothes and allays in a marked manner any inflammation and swelling of the external parts. It is a question how high a temperature can be borne, but I have known of a patient using water as hot as 125°.

Let me suggest the use of the hot injection into the uterus for the hastening the removal of the placenta; and, again, if in any case of hæmorrhage you should fail to bring on contraction, allow me to suggest the strong tincture of iodine injected well into the fundus to prevent the too early contraction of the cervix, whereby there is risk of some fluid being retained.

Yours very truly,

To Dr. Lombe Atthill. WM. S. WHITWELL.

ON A MODIFICATION IN GRADUATED STAFFS.

To the Editor of THE LANCET.

SIR,—In a recent number of THE LANCET Mr. Oliver Pemberton called attention to the use of taper or graduated staffs in the treatment of stricture. The great advantage that results from their use no practical surgeon, who is acquainted with it, will deny. The extreme facility with which we can do all the dilatation we desire without the trouble and risk of the frequent introduction of fresh instruments, will ensure anyone who has once tried them continuing their use. I would suggest one caution—that is, not to do too much at one sitting. It is so easy with these instruments to dilate many strictures—say from a No. 4 to a No. 10 or 12—in a few minutes, that to an inexperienced operator there may be some temptation to do this, a proceeding which would often be fraught with danger.

The modification I have introduced, as will be seen by the engraving, is to have the greatest circumference, or bulge, of

the staff at the curve of the instrument, and to cause the instrument to taper each way from this—that is, towards the point *and towards the shaft*. In passing a catheter or staff, a practical surgeon almost instinctively recognises the size by the look, and especially by the feel of the shaft which he holds in his fingers. It seems to me, therefore, unwise to hold in the fingers *a shaft*, say of a No. 10, while we are guiding through a stricture the point of a No. 3 or 4. In the instrument I use the shaft is accurately graduated to the size of the point, so that while passing a point, say of a No. 3, the sight and touch (the shaft being also a No. 3) indicate the size of the point. In addition to this the staff acts as a bulbed staff, and notifies when a stricture has been traversed; and in treatment of a case of multiple strictures, the passing of the instrument is much facilitated by the shaft of the staff being of smaller circumference than the curve or bulge of the instrument. This allows the staff to move freely in the first stricture, and enables the operator to deal more readily, and with more safety and certainty, with any deeper strictures.

The staffs have been carefully made and accurately guaged by Messrs. Salt and Son, of Birmingham, and the bright and hard surface produced by nickel plating, which is also preventive of rust, is an additional advantage in use. I believe that similar staffs have been previously made, but as I do not know that they are kept by instrument makers, and as I believe the modifications I have described to be general improvements, I have thought it well to direct the attention of my brethren interested in surgery to them.

Your obedient servant,

T. H. BARTLEET, F.R.C.S.

Birmingham, June 15th, 1878.

ON THE ADMINISTRATION OF IRON AND COD-LIVER OIL.

To the Editor of THE LANCET.

SIR,—The desirability, and, at the same time, the difficulty, of giving the above remedies simultaneously must, no doubt, frequently have been experienced by every member of the profession. The difficulty consists in this:—If any of the commonly-used preparations of iron, such as the syrup of the iodide, or the tinctures, be in any way mixed with the cod-liver oil, the well-known and horribly nauseous flavour produced by the contact of steel and fish is strongly developed; and, on the other hand, if the oil be given at certain periods of the day, and a mixture, or even pills containing steel, at other times, the patient will, in all probability, make the complaint—"I seem to be always taking medicine," and his or her perseverance finally proves unequal to the task. I find that we have in the new preparation, solution of dialysed iron, a very satisfactory means, if the following plan be adopted, of overcoming such difficulties. When the oil has been poured on the vehicle in which it is usually taken, the requisite dose of the iron solution should then be carefully dropped upon the surface of the oil, and it will be found to remain suspended in the latter, neither sinking through into the liquid below nor becoming decomposed in any way. The iron solution being as nearly as possible tasteless, its addition is in no way objectionable to any patient who can tolerate the oil, and the relief from frequently repeated dose-taking is of course great. I have not yet had sufficient experience of the solution of dialysed iron to say whether its hæmatinic properties are equal to those of some other preparations of iron, but should they be found to be so, its adaptability for administration in the way referred to cannot fail to make it one of the most valuable chalybeate preparations.—I am, Sir, yours &c.,

G. F. ELLIOTT, M.D.,
Physician to the Hull Infirmary.

"INQUESTS IN ROYAL PALACES."

To the Editor of THE LANCET.

SIR,—I have just noticed the paragraph in your last week's issue relating to inquests in Royal Palaces, and wish to inform you that the coroner is bound to summon a jury composed of "yeomen in the service of Her Majesty."

I believe a misapprehension on the part of a lodge-porter prevented the presence of representatives of the press, but on application being made to the coroner, a full copy of all the evidence in the case was sent to the *Windsor and Eton Express*. There was no noticeable difference to be observed between this and any other inquest. Every possible evidence was taken, and the coroner, who is a most capable officer, investigated the matter as far as was possible.

I am, Sir, yours, &c.,

Windsor, June 13th, 1878. THOMAS FAIRBANK, M.D.

FILARIA SANGUINIS HOMINIS.

To the Editor of THE LANCET.

SIR,—I have for some weeks had under my care a woman who is the habitat of the *Filaria sanguinis hominis*. The interest is increased by the fact of her isolation. In due time Dr. Lionel Beale will, I believe, kindly bring the case before the Medical and Chirurgical Society.

I am, Sir, yours faithfully,

Hastings, June 13th, 1878. D. HOADLEY GABB.

OF the foreign cities of which returns are published by the Registrar-General, St. Petersburg exhibits the highest annual death-rate (51); Alexandria and Bombay coming next with 44 each, then Calcutta with 43, Buda-Pesth 42, Vienna 34, Berlin and Naples 31 respectively.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following Members were elected Fellows of the College at the last meeting of the Council :—

Houghton, J. Hyde, J.P., L.S.A., Priory Villa, Dudley; diploma of membership dated April, 1838.
Kellock, W. Berry, L.S.A., F.L.S., Stamford-hill; May, 1843.
Mann, R. James, L.S.A., Wandsworth-common; June, 1840.

Mr. B. Thompson Lowne, F.R.C.S., will commence his course of three lectures on the Physiology of Nerve-stimulation on Monday next, at 4 o'clock, in the theatre of the College. These lectures will complete the course for the present year.

The election of two Fellows of the College as members of the Court of Examiners will take place on Wednesday, the 10th July. Names of candidates for the office must be sent in on or before the day previous to the election.

APOTHECARIES' HALL. — The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on June 13th :—

Whitehead, George Marsden, Greek-street, Stockport.

The following gentlemen also passed the Primary Professional Examination :—

William Eaton Latham Batty, Liverpool Hospital; Herbert Alfred Clowes, Guy's Hospital.

QUEEN'S UNIVERSITY IN IRELAND.—The following degrees were conferred on the 17th inst. :—

DOCTOR IN MEDICINE. — Charles Warke Allison, Alfred Constantine Bennett, John Thomas Collier, Patrick Oswald Considine, William Fleck, Robert Evans Hadden, Charles Hall, J. Courtney Haslett, Francis Thos. Henston, Chas. Kevin, Pershouse William L. Langley, Joshua Lytle, Daniel Roderick O'Connor, James Wigmore.

MASTER IN SURGERY. — Patrick Maurice Carleton, Isaac C. Dundee, Alfred Constantine Bennett, William Fleck, Robert Evans Hadden, Francis Thomas Henston, Charles Kevin, Pershouse W. L. Langley, Joshua Lytle, Daniel Roderick O'Connor.

DIPLOMA IN MIDWIFERY. — Alfred C. Bennett, J. Fritz Beck, John Thomas Collier, Robert Evans Hadden, Charles Kevin.

COLLEGE OF PHYSICIANS IN IRELAND. — At the June examinations the following obtained the licences in Medicine and Midwifery :—

MEDICINE. — Frederick Albert Barrington, Joseph Aloysius Beattie, James Nicholas Dick, Richard Lawlor Hughes, Alfred Vavasour-Lane, Jameson John Macan, Robert Joseph Martyn, Fredk. Joshua Roberts, Simon Davenport Sproulle, Thomas Bennett Walley.

MIDWIFERY.—Fredk. A. Barrington, Joseph A. Beattie, Thos. Vesey Bell, James Nicholas Dick, Richard Lawlor Hughes, Jameson John Macan, Frederick Joshua Roberts, Thomas Orde Smith, Thomas Bennett Walley.

ELISHA H. MONKS, L.R.C.P. Edin., has been placed on the Commission of the Peace for Wigan.

WILLIAM S. PRIESTLEY, M.R.C.S. Eng., of St. Faith's, Norwich, has been presented with a very handsome timepiece of black marble, ornamented with gold and bronze, inscribed "Presented to W. S. Priestley, Esq., by the members of Court 'Poor Man's Friend,' A.O.F., as a token of esteem and appreciation of his services, rendered to them as surgeon and treasurer, during a period of eighteen years."

THE deaths in London last week numbered 1300, being 40 below the corrected weekly average. Whooping-cough continues to be the most fatal of the zymotic diseases, 101 deaths having been registered under this heading. Small-pox claimed 24 victims, measles 20, scarlet fever 24, diphtheria 8, different forms of fever 22, diarrhœa 21, and diseases of the respiratory organs 200. Different forms of violence were fatal in 49 instances.

SOCIETY OF PUBLIC ANALYSTS.—At the meeting on Wednesday, the 26th June, at 8 P.M., at Burlington House, Piccadilly, the following papers will be read:—"On the Detection of Alum in Flour," by A. Wynter Blyth, M.R.C.S.; another paper on the same subject, by W. C. Young; "On the Assay of Carbolic Acid Powders," by A. H. Allen, F.C.S.; "Note on the Detection of Alum in Flour," by Dr. Dupré, F.R.S.; "Preliminary Note on the Nitrogen Salts contained in the Cereals," by G. W. Wigner, F.C.S. The Report of the Council in connexion with the recent correspondence as to the reference of disputed samples to Somerset House will be brought forward.

Medical Appointments.

AMPHLETT, E., M.A., M.B., F.R.C.S.E., Assistant-Surgeon to Charing-cross Hospital, has been appointed Assistant-Surgeon to the Central London Ophthalmic Hospital.

ATTHILL, W. E. B., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer of Health for the Faversham Urban Sanitary District, at £30 for one year from Midsummer day.

CANTON, G. A., M.R.C.S.E., has been appointed Honorary Dental Surgeon to the Royal Isle of Wight Infirmary, Ryde.

CHURTON, T., M.D., has been appointed an Honorary Physician to the Leeds Fever Hospital, vice Chadwick, resigned.

COWBURN, Mr. G. H., has been appointed a Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton, vice Williams, whose appointment has expired.

DE LA MOTTE, G. C., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Swanage District of the Wareham and Purbeck Union, at £60 per annum and fees; and Medical Officer of Health for the Swanage Sub-district of the Wareham and Purbeck Rural Sanitary District, at £15 per annum, vice P. W. De la Motte, L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., resigned.

DUNCANSON, J. J. K., M.D., C.M., F.R.C.P.Ed., F.R.S.Ed., has been appointed Acting Surgeon to the 1st E. A. Volunteers.

EDIS, J. B., M.R.C.S.E., L.R.C.P.Ed., has been appointed Honorary Assistant Medical Officer to the Liverpool Ladies' Charity and Lying-in Hospital.

ELKINGTON, T., M.R.C.S.E. & L.M., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Priors-Marston District of the Southam Union, Warwickshire, vice Bagg, deceased.

EVANS, W. M. H., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Huddersfield Infirmary, vice Wright, resigned.

GARRETT, Mr. H. E., has been appointed Resident Obstetrical Officer to the Charing-cross Hospital, vice Leahy.

GREENISH, R. W., L.R.C.P.L., M.R.C.S.E., has been appointed Junior House-Surgeon to the Huddersfield Infirmary, vice Anderson, resigned.

GRIEVE, A. C., M.R.C.S.E., has been appointed Medical Officer for the Parish of Pitaligo, vice Kennedy, resigned.

HARDING, W. H., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Nacton District and the Workhouse of the Woodbridge Union, vice Kingston, deceased.

HARVEY, H. F., M.R.C.S.E., has been appointed Resident Medical Officer to the London Fever Hospital, at £200 per annum, residence, &c., vice Murphy, resigned.

HAWKES, J., M.D., has been appointed Medical Officer to the Court Poor Man's Friend, Ancient Order of Foresters, St. Faith's, Norwich, vice Priestley, resigned.

HICKS, G. A., M.R.C.S.E., L.R.C.P.L., has been appointed Medical Officer and Public Vaccinator for the Bushey and Aldenham District of the Watford Union, vice Lavin, resigned.

HUGHES, C. J. L., L.R.C.S.I., L.A.H.D., has been appointed Resident Apothecary and Accoucheur to the Westmoreland Lock Hospital, Dublin, vice Rice, resigned.

JOHNSTONE, J. C., M.B., C.M., has been appointed Assistant Medical Officer to the Fife and Kinross District Lunatic Asylum.

LANGDON, J. W., M.R.C.S.E., L.S.A.L., has been appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, vice Hallsworth, promoted to be Senior House-Surgeon.

LEAHY, A. W. D., L.S.A.L., has been appointed Resident Surgical Officer to the Charing-cross Hospital, vice Whitehead.

LE QUESNE, E. J., L.R.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Jersey General Dispensary, vice Dustan, resigned.

LILLEY, G. H., M.D., M.R.C.P.Ed., has been appointed House-Surgeon to the Bristol Royal Infirmary, vice Smith.

MCCOMBIE, Dr. J., has been appointed Medical Superintendent of the Metropolitan Asylum District Asylum, Deptford.

MACNAMARA, C. E., L.K.Q.C.P.I. & L.M., L.R.C.S.I., first Assistant-Surgeon to the Colonial Hospital, British Guiana, has been promoted to be Resident Surgeon, at £600 per annum and residence.

MAHONY, L. F., M.B., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the London Hospital.

MASSEY, W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Alvaston and Boulton Urban Sanitary District, for one year.

MICKLEY, A. G., M.B., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the Standard-hill District of the Basford Union, Notts, vice Stevenson, deceased.

MILNE, T., M.D., has been appointed Certifying Factory Surgeon for the District of Alloa, vice McFadyen, resigned.

PATTISON, Mr. E. S., has been appointed Assistant Surgical Officer to the Charing-cross Hospital, vice Rowbotham.

QUICK, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Penzance Rural Sanitary District, at £80 for one year from the 20th inst., vice Trezise, whose appointment has expired.

ROBERTS, F. T., M.D., B.Sc., F.R.C.P., has been appointed Professor of Materia Medica and Therapeutics at University College.

ROWBOTHAM, Mr. H. C., has been appointed Assistant Medical Officer to the Charing-cross Hospital, vice Harrison.

SEDGEFIELD, A. R. W., M.B., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Royal Hants County Hospital, Winchester, at £100 per annum, board and lodging, vice Heale, appointed House-Surgeon to the Warneford Hospital, Leamington.

TREDINNICK, E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Stokesay District of the Ludlow Union.

WARD, H. D., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Cowpen Urban Sanitary District, Northumberland.

WATSON, W. S., F.R.C.S.E., M.B., has been appointed Surgeon to the In-patients' Department of the Great Northern Hospital, vice Jackson, deceased.

WICKERS, H. A., M.R.C.S.E., has been reappointed Resident Medical Officer to the Charing-cross Hospital.

Births, Marriages, and Deaths.

BIRTHS.

HUMPHREYS.—On the 13th inst., at Trinity-square, Tower-hill, the wife of F. W. Humphreys, F.R.C.S.E., of a daughter.

MIDDLETON.—On the 16th inst., at Mullingar, the wife of William Henry Middleton, L.K.Q.C.P.I., of a son.

PEARCE.—On the 10th inst., at The Manor House, Brixton-rise, the wife of J. C. Pearce, M.D., of a daughter.

WOODWARD.—On the 13th inst., at Roslyn, Caterham Valley, the wife of G. P. M. Woodward, L.K.Q.C.P.I., Deputy Surgeon-General, Army, half-pay, of a daughter, who lived only a few hours.

MARRIAGES.

MACKAY—BOYES.—On the 4th inst., at Dumfries, Duncan Mackay, M.D., to Sarah Ann, daughter of the late John Boyes, Esq.

MORIER—GILMOUR.—On the 13th inst., at Trinity Church, Tunbridge Wells, William John Morier, M.D., to Susan Ewing, daughter of Allan Gilmour, Esq.

DEATHS.

BLAND.—On the 8th inst., at Park-green, Macclesfield, James Bland, M.R.C.S.E., aged 68.

BLOOMFIELD.—On the 8th inst., at Coddenham, Suffolk, Horatio Bloomfield, M.D., aged 71.

COTTERILL.—On the 11th inst., at Millersdale, Derbyshire, Alfred Cotterill, M.B., of Newcastle-under-Lyme, aged 33.

COVEY.—On the 13th inst., at Wilton-street, Grosvenor-place, William Henry Covey, F.R.C.S.E., aged 74.

CROMARTY.—On the 11th ult., at Tura, Assam, James P. Cromarty, M.R.C.S.E., Civil Surgeon.

DAVIES.—On the 13th inst., at Rhiwlas, Bury, Lancashire, Thomas Clifford Davies, M.D., aged 56.

DIVER.—On the 17th inst., at Herne Bay, Thomas Diver, M.D., late of Onslow-place, South Kensington, aged 42.

DONALD.—On the 14th inst., at Fife-street, Macduff, William Donald, L.R.C.S.Ed., aged 69.

EVANS.—On the 16th inst., at Finborough-road, South Kensington, William Julian Evans, M.D., aged 73.

GRIERSON.—On the 12th June, at Smallholm, Dumfriesshire, Mathew Grierson, late of the Bengal Medical Service, aged 74.

GRIMSHAW.—On the 16th inst., at Bray, co. Wicklow, Wrigley Grimshaw, F.R.C.S.I.

HUME.—On the 19th ult., at Oldham, John Collins Hume, L.R.C.P.Ed., aged 46.

RAWSON.—On the 11th inst., at Baltinglass, Lewis Mansergh Rawson, L.K.Q.C.P.I.

REES.—On the 9th inst., at Alverstoke, John Rees, Surgeon, aged 70.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*]

BOOKS ETC. RECEIVED.

C. E. A. Semple: Aids to Chemistry. Part II.—Inorganic.
M. F. Anderson: Phosphates in Nutrition.
J. E. Erichsen on Surgical Evidence in Courts of Law.
R. J. Godlee: An Atlas of Human Anatomy. Part V.
C. Klenn: Muscle-beating.
Night and Day.
The Novelette. Part I.
St. Louis Medical and Surgical Journal. June.
The Dublin Journal of Medical Science. June.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.

DISTRIBUTION OF PRIZES.

THE following is a list of gentlemen who obtained prizes at the distribution held on June 19th, 1878:—

SCHOLARSHIPS, &c.—Llewellyn (£25): H. G. Jacob. Golding (£15: Jas. Turton. Governors' Clinical Gold Medal: T. M. Hughes. Pereira Prize (£5 and Bronze Medal): T. M. Hughes.

MIDWIFERY.—Silver Medal: H. G. Jacob. Certificates: H. E. Garrett, T. M. Hughes, Chas. Curde.

FORENSIC MEDICINE.—Silver Medals: Chas. Curde, A. C. N. Golding.

MATERIA MEDICA.—Silver Medal: Jas. Turton. Certificates: J. F. Williams, J. C. Culling.

PRACTICAL CHEMISTRY.—Senior Medal: J. M. Smith. Certificates: W. J. Clarke, C. R. Crane, J. F. Williams.

BOTANY.—Silver Medal: J. F. Williams. Certificates: H. F. Corbould, R. W Branthwaite.

SENIOR MEDICINE.—Silver Medal: H. G. Jacob. Certificates: T. M. Hughes, W. H. Day.

JUNIOR MEDICINE.—Bronze Medal: Jas. Turton. Certificates: H. Richardson, W. J. Clarke.

SENIOR SURGERY.—Silver Medal: H. G. Jacob. Certificate: T. M. Hughes.

JUNIOR SURGERY.—Bronze Medal: Jas. Turton. Certificate: W. J. Clarke.

SENIOR ANATOMY.—Silver Medal: Jas. Turton. Certificates: C. R. Crane, H. F. Corbould.

JUNIOR ANATOMY.—Bronze Medal: E. E. Newnham. Certificates: H. Harris, M. Koetlitz.

CHEMISTRY.—Silver Medal: W. G. Burrows. Certificates: T. E. Rogers, J. F. Williams.

Notes, Short Comments, and Answers to Correspondents.

A Disgusted One.—Surely our correspondent must have omitted to state some particulars connected with the case in which a medical officer sent to Europe on medical certificate "had to pay some £70 for his passage and railway expenses back to his station in India." Officers, when invalided, are entitled to their passage at the public expense. The two cases referred to, in which medical officers had to refund allowances which they had drawn not in accordance with the regulations, do not seem to us to justify the charge of "flagrant injustice" brought by our correspondent against the authorities. They rather indicate a want of ordinary prudence on the part of the officers in not making themselves acquainted with the regulations under which they are serving. If an officer draws allowances to which he is not entitled, he can hardly complain of having to refund. If this were not done, what security would the public have against money being drawn without any reasonable claim existing? Our correspondent would do well to tone down his language, and to state any grievances he may have with moderation. We are afraid that he is "a disgusted one" because he did not take the trouble to inform himself as to the conditions of the service before he became a candidate for admission into it.

Dr. Williams.—The Harveian Oration will be delivered at the Royal College of Physicians by Dr. Burdon-Sanderson on Wednesday, the 26th inst.

Nerve.—Our correspondent should himself refer to the Medical Directory.

"THE BIRMINGHAM BOARD OF GUARDIANS."

To the Editor of THE LANCET.

SIR,—In a late issue of your otherwise impartial journal (THE LANCET, June 1st), I am surprised to see what I feel, and what most of the Birmingham public consider, to be a very biased interpretation of the action of the Birmingham Board of Guardians in appointing me temporarily to the post of district medical officer.

If the word "annotation" mean a rescript of a communication from one of the unchosen candidates or his friends, hastily conned, and more hastily inserted, your apparent partiality may be thus explained; if not, in what way, except by communication from some biased source, may I humbly ask, could you arrive at the knowledge, which is not so widespread after all, that both of these rejected candidates are men of high standing, and myself one of mediocre ability and scant experience. I know well that you cannot have come to this conclusion by any other process, not having had an opportunity of comparing my professional knowledge with theirs, nor of examining the numerous testimonials I possess from eminent medical men, testifying in the fullest manner to the exact contrary of your statement. It is very unpleasant to have to speak of one's own qualifications, more especially against those who, wanting the manhood to avow themselves, would assail one from behind the safe covert of an editorial chair; but, impelled by the law of self-defence, I beg to say that I was the only Gold Medalist and Prizeman amongst the selected candidates, and, in addition to those evidences of at least a theoretical knowledge, I possessed many others, showing that I had had opportunities, of which I had fully availed myself, of applying that knowledge to practice; had been resident surgeon to a large free hospital, acting visiting surgeon to a union, and had always been accustomed to the management and supervision of the sick poor.

With regard to the statement of being prohibited from private practice, I beg to say that no such prohibition has been laid upon me by the Board, who I am satisfied are well able to justify the appointment they have made, and their character for urbanity and due consideration for the wants of the sick poor committed to their charge.

Whatever opinion may be formed as to the practicability of the scheme under consideration, there can be but one as to its object—to increase the salaries attached to the districts to such an amount as would make it worth the while of a medical man to devote his whole time to the service of the sick poor, which, though very arduous work, has always been held most honourable by the profession.

Trusting you will give this the same publicity as the article to which it refers,

I am yours faithfully,

June, 1878. E. H. O'LEARY.

LADY STUDENTS AT PARIS.

UNDER the heading of "Nos Doctoresses," the *Revue de Thérapeutique* says that since 1865 the number of female students entered for the courses at the Faculty of Medicine in Paris has been 32. Of this number, nine have graduated—viz., Mmes. Garrett (1870), Putnam (1871), Brés (1875), Ribars (1876), Barker, Bovell, Ocamkoff, Gortschakoff, and Dahms (1877). The number at present studying in Paris is 23, of whom 6 are English, 12 Russian, and 5 French.

Subscriber.—The extras must be regarded as a part and parcel of the appointment, and should be estimated on an average of, say, three years.

THE CHELMSFORD HYDROPHOBIA CASE.

To the Editor of THE LANCET.

SIR,—I have read Dr. Nicholls's case, published in your issue of to-day, which, though very interesting in its way, I do not think will be accepted by the profession at large as a genuine case of hydrophobia. Its duration, the tetanic symptoms, opisthotonos, &c., the unconsciousness, to say nothing of the ultimate recovery, rather preclude, if I may take the liberty of saying so, the idea of its being really a case of hydrophobia.

I remain, Sir, yours truly,

June 15th, 1878. DUBITANS.

X. Y. X.—1. The Bill will not affect the present position of a M.R.C.S.I. registered or now entitled to be registered. — 2. This question is answered in the first reply.—3. Assuming a registered M.R.C.S. to be desirous of qualifying in medicine, any existing qualification in medicine will suffice for registration, provided it is obtained before the commencement of the Joint Board system. The Bill requires the establishment of this system before the last day of June, 1879.—4. Men on the Register with only one kind of diploma will have but one qualification.—5. A registered L.S.A. will not after the passing of the Act be entitled to put "surgeon" on his door-plate.—6. No.—7. No.—8. Yes, until the commencement of the Conjoint Board system.—9. The Medical Council or Branch Councils or medical authorities will have the power to prosecute under the Act, or may give authority to private persons to do so.

Mr. J. W. Christian Selle.—The questions proposed have been discussed repeatedly in THE LANCET, notably in the article on "Alcohol," which appeared on Dec. 22nd, 1877.

BEEF-TEA.

To the Editor of THE LANCET.

SIR,—A few years ago I made some analyses of beef-tea, which may possibly interest your correspondent, "L. R. H."

Beef-tea (No. 1) from Guy's Hospital, made from one pound of minced lean beef to one pint of water. Specific gravity at 60°, 1011·6. 500 grains evaporated to dryness in water-bath left 11·80 grains.

	Grains per cent.
Organic matter	1·730
Salts	·636
	2·366

Beef-tea (No. 2), private source, but made as above. Specific gravity at 60°, 1009·9. 500 grains evaporated in water-bath, and dried in vacuo, left 10·55 grains.

Alkaline salts, chiefly chloride of sodium	·510
Lime salts	·190
Organic matter..	1·404
Water	97·896
	100·000

3rd. Four ounces of lean rump-steak were very finely minced, macerated in the cold with five ounces of water for six hours, then heated for one hour in water-bath, and strongly expressed, gave—beef-tea, 5·5 fluid ounces; specific gravity, 1009. 500 grains gave 9·76 grains of residue.

Organic matter..	1·408
Salts	·542
	1·950 per cent.

The amount of solid matter, therefore, amounted to only 2·30, 2·10, and 1·95 per cent. respectively in the three specimens, and, it must be remembered, of beef-tea of unusual excellence. Now, good cow's milk contains about 14·5 per cent. of solid matter, or seven times as much as the best beef-tea our cooks can give us, and not only so, but solid matter of a different kind. In milk we have casein, butter, sugar, and salts. In beef-tea, kreatine, urea, inosite, triple-phosphate, extractive and colouring matter—that is, the débris and solution of worn-out and broken-down cells and their contents, and differing but little from healthy urine.

And, by parity of reasoning, it is obviously a most mischievous error to regard Liebig's Extract as a true essence of beef—that is, as containing in a small bulk the whole nutritive matter of many pounds of meat in the same sense as we speak of an extract or an alkaloid representing the remedial value of some bulky plant, or, in truth, as possessing any nutritious power whatever. It is, of course, a beef-tea from which the water has been removed by evaporation, and containing precisely the same substances. Under the microscope, especially with polarised light, the crystals of kreatine and triple-phosphates can be beautifully seen, and a portion heated on the point of a knife over a flame gives out an odour unmistakably urinous.

As a most grateful stimulant, well-made beef-tea is as useful as it is agreeable, and, as Dr. Dobell pointed out, by giving *well-salted* beef-tea we can often revive a patient's appetite for milk when the latter has become distasteful, and so feed and stimulate at the same time. But it contains neither fibrin nor albumen, and is, therefore, not meat; and to attempt to replace milk or to build up an emaciated body with "Liebig" is like trying to build a house with extract of bricks and essence of mortar.

Yours obediently,
G. F. MASTERMAN, L.K.Q.C.P., &c.

Ixworth, Bury St. Edmunds, June 17th, 1878.

Spero Meliora.—We have repeatedly pointed out the necessity for some assurance being given that Royal Warrants shall not be tampered with either by the Horse Guards or War Office. If our correspondent is correct in stating that a second in command in India takes precedence regimentally of a medical officer holding higher relative rank, we can only say that such disregard of the Queen's Regulations should be brought to the notice of the higher military authorities. We understand that all civil distinctions, except University degrees, are excluded from the Army List, because it would be difficult, almost impossible, to give satisfaction if certain capital letters were admitted, and others, such as F.R.S., F.S.A., M.R.C.S., rejected.

A London Student.—There is no provision for such a case in the Bill, though clearly there should be. It would be unreasonable not to recognise the right of a student who has passed the primary professional examination of both the College and Hall to go up for the pass examination. Our correspondent should state his case to the Lord President.

Dr. S. H. Owen's paper will be inserted in an early number.

Veteran.—Does our correspondent really know what he wants, and has he considered the effect of his recommendation if it were carried out? Is he prepared to maintain that a medical officer, if from any accidental occurrence he should happen to be the senior officer in a district, should take the command of the troops?—for his demand virtually amounts to this. If he will take the trouble to look at section 2, paragraph 10, of the Queen's Regulations, he will find that medical officers are not the only ones to whom relative rank is given, but that officers of the adjutant and quartermaster-general's department and military secretaries are in the same category. The command of the officers of their own department, of the officers and men of the Army Hospital Corps, and of patients in hospital, has been given to the medical officers, and we do not see in what respect any further power of command is required or could be given. What does our correspondent mean by substantive rank unless it is to carry with it military command?

Mr. Wade.—We are obliged for the suggestion. Too late this week.

"UNQUALIFIED ASSISTANTS AND PUBLIC VACCINATORS."

To the Editor of THE LANCET.

SIR,—A paragraph in your last issue, headed as above, having come under my notice, I, as public vaccinator for this township, must ask you to give the same prominence to my refutation of the allegations therein contained as you have chosen to accord to a story, which in every detail is without the semblance of a scintilla of truth.

Imprimis, the Board of Guardians of Runcorn have *not* "been occupied in considering a complaint of their vaccination officer that the public vaccinator allowed his unqualified assistants to perform vaccination."

Secondly, it is *not* true "that certificates of successful vaccination were filled and signed by the same unqualified assistants in my name."

Thirdly, no "child suffering from small-pox has died in the Runcorn Hospital who has been vaccinated by one of the (mine) unqualified assistants."

Fourthly, it is false that the "certificate of successful vaccination was produced, and found to be signed in the name of the public vaccinator."

Lastly, it is a misrepresentation of facts, wilful or otherwise, to say that "I admitted the facts, and alleged that, to my knowledge, it had been the custom for years for vaccination to be performed by unqualified assistants."

The paragraph, not only by the conspicuous type and position allotted to it, but by the tone in which it is worded, has already had an influence the reverse of beneficial upon my position as a public servant. Therefore, I request you to publish this denial *verbatim et literatim*, and I cannot refrain from adding that a substratum of truth at all events is indispensable where the mission of an Editor is to expose an abuse.

I am, Sir, your obedient servant,
F. M'DOUGALL,
Public Vaccinator for the Runcorn District of the Runcorn Union.

Runcorn, June 18th, 1878.

*** We willingly insert Mr. M'Dougall's letter, and we should advise him to write a similar one to the local paper, upon whose report of the meeting of guardians we wrote.—ED. L.

PHYSICIAN *v.* DOCTOR.

In Doubt. — Our correspondent bears much of the want of right of F.R.C.P.s, M.R.C.P.s, and L.R.C.P.s to call themselves "Doctor," but wishes to ask whether a M.D. has any right, without either F.R.C.P., M.R.C.P., or L.R.C.P., to style himself "physician." The word "physician" is not much used, except by licentiates of a College of Physicians, who break no law, as far as we know, in using it. Doctors of medicine do not use it, though they are often described by the public as physicians in the sense of being medical consultants—not surgeons. We do not see how the public can be accused either of bad law or of speaking bad English in styling doctors of medicine, in this sense, physicians.

ASHPITS.

To the Editor of THE LANCET.

SIR,—Can you readily refer me to the statute law of England as to these public nuisances? In traversing the back streets where they abound, one is half-choked with ashes, fish stench, and such like abominations. The air of the sick-room and food in the pantries are coated with disease germs, which no sunbeam is required to discry. Physicians may prescribe good food to delicate patients in vain. They cannot get its nourishment for filth in the air.

Yours &c.,
June, 1878. MEDICUS.

*** The Public Health Act, 1875, section 91, includes among nuisances liable to a penalty not exceeding *five* pounds, "Any pool, ditch, gutter, water-course, *privy*, urinal, cesspool, drain, or *ashpit*, &c., foul, or in such a state as to be a nuisance or injurious to health." Section 40 of the same Act enacts that "every local authority *shall* provide that all drains, waterclosets, privies, ashpits, and cesspools within their district be constructed and kept so as not to be a nuisance or dangerous to health." Section 41 provides that on the written application of anyone, stating that any drain, watercloset, privy, ashpit, or cesspool on or belonging to any premises within their district is a nuisance or injurious to health (but not otherwise), the local authority may take measures for the abatement of the nuisance. Local authorities may themselves undertake to cleanse or contract for the cleansing of ashpits, or, if they do not do this, may make bye-laws imposing the duty on the occupier of the houses (sections 43 and 44).—ED. L.

BONE-SETTERS.

M.B., C.M. Edin. should do very little in the matter beyond expressing his entire willingness that the patient should by all means have a bone-setter if he wishes it. He is not the first good surgeon who has had a patient so ill judging, nor will he be the last. He has the satisfaction of having treated an awkward injury on sound principles. He must now show his magnanimity by recognising the freedom of his patient to prefer bad advice to good.

J. S. L.—Qualifications in both medicine and surgery (both registrable) are required, we believe, as in the English Poor-law service. Our correspondent appears to have both sorts of qualifications.

Alpha.—We cannot name any particular institution.

TREATMENT OF ACNE ROSACEA.

To the Editor of THE LANCET.

SIR,—Seeing an inquiry in THE LANCET of the 8th instant on the above subject, I think you may find room for a few remarks upon the surgical treatment of acne, which I had just completed after a series of successful cases in public and private practice.

Authors and writers from the earliest ages up to the present day seem to have considered the successful treatment of acne, particularly that form known as acne rosacea, to be of some considerable difficulty. I have been much rewarded lately in hospital and private practice with some very good results by the carrying out of the following mode of treatment. In the first place, vegetable acids, mineral waters, purgatives, arsenical preparations, mercurials, and other specifics, are not indicated in this eruption of the skin, nor have I ever found them of much avail. The diet should be carefully regulated, all indigestible food avoided, and little or no stimulant should be allowed, except in those cases where the powers of digestion may require slight stimulation or excitation to perform their proper function, and the discriminate use of chalybeates, combined with mineral acids, vegetable bitters, and tincture of iodine, I consider to be our most useful internal remedies. These are considerably augmented by the sulphur vapour douche or bath. But it is the external treatment of acne that is the most important, and it is to this that I should wish to draw more particular attention. If at the onset of the affection the sebaceous glands and follicles become affected and overloaded, they should be relieved by pressure between the finger and thumb-nail or a large watch-key, and by frequent washings with warm water and oatmeal, after which a good rubbing with a flesh-brush will remove the contents of a number of the pimples. If the disease is more advanced, and the indurated spots become enlarged and painful, the vapour douche is then of much service, followed by an ointment of the ammonio-chloride of mercury (thirty grains to the ounce), and camphor (one ounce), or the gentle application of iodide-of-sulphur ointment at night, and the use of a cooling zinc or calamine lotion and glycerine (of the former about two drachms of each to the ounce), to be painted over the part affected two or three times a day. With the judicious use of the above remedies and applications we may probably remove and cure the disease; but troublesome redness, with often great vascularity of surface, still remain in spite of all treatment, and it is to this stage of the affection those remarks tend. To these small indurations and superficial venous enlargements of texture I apply the strong acid nitrate of mercury with care by means of a spun-glass brush. One or two applications, with the immediate use of blotting paper, will usually suffice to effect complete obliteration of the veins without a scar, and I find after a few days the morbid state of the capillaries has undergone a complete change for the better. Nevertheless, we may still have some of the larger capillaries, which keep up the localised redness and induration, to contend against; then the mercurial acid treatment does not hold good. I therefore divide each engorged superficial and conspicuous vessel with the point of a lancet, and, should the hæmorrhage be much, I apply a small ring of silver or steel, about the eighth of an inch in diameter, which I have fixed into a handle at right angles, over the divided ends of the vessel. I then insert a minute grain of nitrate of silver upon the end of a probe, which at once stops the bleeding, and soon obliterates the engorged vein, leaving only a small, black, discoloured spot, which may easily be removed by the application of a solution of iodide of potassium.

The above treatment may appear somewhat heroic for so common a skin affection; but I can only state I have made use of it in a large number of cases in hospital and private practice, and find it a most successful mode of treatment. I remain, Sir, yours truly,

Sackville-street, W., June 10th, 1878. JAMES STARTIN.

To the Editor of THE LANCET.

SIR,—In answer to "A Young Surgeon," I would recommend him to try the oleate of mercury (five per cent.) to be applied (not rubbed in) to the face morning and evening, each application to be allowed to remain on until time for next, then to be washed off with a little glycerine soap, the face being bathed meanwhile for about ten minutes in warm water. The diet should be light and digestible, all stimulants being entirely prohibited. If constipation is a complication, the bowels must be carefully attended to, confection of sulphur or senna, or some such mild aperient, being, I think, the most efficacious. Dyspepsia, if present (which is usually the case), must be regarded with special attention, as while the stomach is "hot and acid," and the skin irritable in consequence, all local treatment is nugatory. Alkalies (small doses on an empty stomach), bismuth, pepsine, after meals &c., are to be recommended. I have lately seen a case similar in many respects to your correspondent's, and which resisted nearly all the drugs he has mentioned, get well under the above simple plan of treatment. I should like to know the result if successful. Yours truly,

June, 1878. M.D.

P.R.C.S., (Army.)—The festival of the College of Surgeons always takes place after the annual election into the Council of the College, and the rule hitherto has been to elect the Chairman alternately from the metropolis and the provinces.

Another Fellow is informed that he must record his vote personally, as voting by proxy is not allowed.

J. Y. G.—The stimulant effects of opium taken habitually may be withdrawn without difficulty if quinine and tincture of capsicum (the former in two-grain, the latter in from five to ten-minim doses) be substituted for the opium, administering the two drugs together as occasion requires. These alternative stimulants should be themselves gradually reduced and discontinued as the system regains its natural tone.

Mr. E. Hill.—We have no knowledge of the institution to which our correspondent refers.

RAPID DILATATION OF THE FEMALE URETHRA.

To the Editor of THE LANCET.

SIR,—The following notes of a case which recently came under my notice will, I think, be found interesting as bearing on the fact that rapid dilatation of the female urethra may be effected to a large extent with good results.

Annie B——, aged ten years, came under my notice in March last, suffering from stone in the bladder. On the 18th, at 4.30 P.M., whilst under the influence of chloroform, I commenced dilatation with a two-bladed urethral dilator. In fifteen minutes I was able to introduce my finger into the bladder, when the calculus was found to be oblong in shape, rough on the surface, and imbedded to half its extent in the anterior wall. I then grasped the stone with a pair of forceps, and with gentle traction succeeded in extracting it in thirteen minutes more, some little time being lost in obtaining a fair grasp with the forceps. Thus in twenty-eight minutes a stone was extracted by the urethra, weighing 170 grains, and measuring 1⅛ inches in length, ⅝ inch in diameter, and 2½ inches in circumference. At 8.30 P.M. urine was escaping without causing much pain. Temperature 100·2°; pulse 120. An anodyne was administered.—12 P.M.: Temperature 101°; pulse 136.

March 19th.—8.30 A.M.: Urine continues to escape. Temperature 99·4°; pulse 120.—7.30 P.M.: Temperature 100°; pulse 108.

20th.—9 A.M.: Urine continues to escape. Temperature 99·2°; pulse 90.

1 P.M.: Temperature 98·6°; pulse 90.

22nd.—Patient retained about half a pint of urine this morning.

23rd.—She is able to retain her urine a convenient time, a little escaping at night.

26th.—Patient sat up for four hours, and was able to retain her urine.

April 1st.—She is running about, and has perfect command over her bladder.

On making a section of the stone, it was found to consist of phosphatic deposit throughout. Your obedient servant,

Saxmundham, June 12th, 1878. M. E. LING, M.R.C.S.

A Fellow, (Manchester.)—The following are the gentlemen who have been admitted Fellows of the College by examination without having previously passed for the Membership:—Messrs. H. Alexander, Timothy Holmes, T. K. Hornidge, Athol Johnston, J. Lister, G. May, E. Palmer, W. F. Teevan.

ARTIFICIAL RESPIRATION IN ASPHYXIA NEONATORUM.

To the Editor of THE LANCET.

SIR,—While artificial respiration in asphyxia neonatorum by Dr. Howard's direct method is discussed in your columns, perhaps you will allow me to suggest a simple and direct method of stimulating the circulation which I have occasionally employed during the last twelve months. Doubtless in the majority of *still*-births the sole care is to establish respiration. But sometimes with gasping inspiratory efforts there is imperceptible heart-beat, and often, while as yet artificial respiration has failed, the heart-beat, at first quick and strong, grows slow and weak. In such cases mere continuance of artificial respiration becomes almost hopeless, and I inject ammonia into the umbilical vein. A convenient instrument may be obtained for a few pence. Fill a two-drachm drop-bottle with one part of liquor ammoniæ and four parts of distilled water, and replace the upper expanded part of the perforate glass-stopper by an imperforate rubber teat. The diameter of the tube of the stopper, which is to be inserted into the vein, should not be more than one-tenth of an inch. This little instrument, kept in a boxwood case, is always ready for use, and will, I think, prove a valuable addition to the obstetric bag. Empty the vein of blood, and gently fill with solution to the umbilicus; drop by drop impel it by the finger towards the heart, and when its beat is strengthened carefully drain the vein of superfluous solution, and apply a ligature. The effect upon the heart-beat is often instantaneous, but respiration is not markedly influenced, and still requires aid. Yours faithfully,

Liverpool, June 16th, 1878. FRANCIS IMLACH, M.D.

J. M. F.—We would recommend our correspondent to place himself in communication with Professor Humphry, who is able to give him the information he desires. We believe four years would be required, and we approve this mode of entering the profession.

PEROXIDE OF HYDROGEN.

To the Editor of THE LANCET.

SIR,—In your issue of the 8th inst. you comment upon some experimental researches made by Guttmann and Fraenkel, and published in the current number of Virchow's *Archiv*.

The researches under consideration are concerned with the property exhibited by peroxide of hydrogen as an antiseptic, and it is shown that this substance preserves urine and meat infusions from putrefaction, while it also prevents the fermentation of grape-sugar. These observations are perfectly correct; but they are not original, having been made public by the writer at the British Association meeting of 1876 (see *Chemical News*, Sept. 29th, 1876, and *Moniteur Scientifique*, July, 1877). The paper in which I communicated these facts incidentally constituted a report upon the atmospheric oxidation of terpenes and others, and contained a full description of the solution then newly discovered, and now well known as "sanitas." This solution contains peroxide of hydrogen, and it was in explanation of some of its properties as an antiseptic and disinfectant that the experiments first referred to were made.

I am, Sir, yours truly,

Scientific Club, June 11th, 1878. CHAS. V. KINGZETT, F.I.C., &c.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions on Pathology, Therapeutics, and Surgery, submitted to the candidates at the recent pass examination for the diploma of Fellow of the College:—

1. Give an account of the changes produced by healthy and strumous inflammation in the tissue of bone and periosteum.

2. How may traumatic rupture of the bladder occur? Describe the diagnosis of such an injury, the chances of recovery, and the measures which might be taken to prevent a fatal result.

3. Describe the operation by which the bones of the wrist and carpal joints, including the heads of the metacarpal bones, may be removed without wounding any large bloodvessels or nerves, and with the least possible injury to other structures.

4. Describe the congenital malformations of the brain which are perceptible externally, and their diagnosis from other surgical affections with which they might be confounded.

B.A., M.D., M.C., L.M.—1. We cannot define what is meant by "requisite information," but shall be glad, if able, to reply to any categorical questions.—2. For arrangements as to passage, apply to the Secretary of the Union Company, 11, Leadenhall-street; or to Messrs. Donald Currie and Co., 3, Fenchurch-street.—3. The Crown Agent for the Cape, Downing-street, might perhaps give information as to "the smallest capital."

Dum Spiro Spero.—Parkes's or Wilson's book on Hygiene.

THE LATE KING OF HANOVER AND HIS BLINDNESS.

To the Editor of THE LANCET.

SIR,—In the various announcements made in the public journals of the death of His Majesty the late King of Hanover it has been stated in some that he was born blind, and in others that he lost his sight from disease; but such is not the fact. In early life I was acquainted, and frequently dined, with the librarian of one of our Royal Dukes, and in conversation with him about His Royal Highness, the then Prince George of Cumberland, I recollect full well his stating that having lost the sight of one eye (from what cause I know not), but that when a youth he was at play with one of those long silken purses in use at that time, holding gold at one end and silver at the other, swinging it round quickly, he unfortunately completely knocked out the remaining eye. Possibly this might interest the medical readers of THE LANCET.

Yours truly,

Plaistow, Essex, June, 1878. THOMAS RICHARDS.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. F. Mason; Mr. G. A. Canton, London; Dr. Luce, Stratford-on-Avon; Mr. Lewis, Birmingham; Dr. Day, Stafford; Mr. Primrose, Beyrout; Mr. Hume, Lingsugur; Mr. Southam, Manchester; Mr. Burdett, Greenwich; Dr. Wright, Hodnet; Dr. Mason, New York; Mr. Owen, Tynemouth; Dr. D. Johnson, Kensington; Mr. White, Corwen; Dr. Thomas, Glasgow; Mr. Chalmers, Castleton; Dr. Elliot, Carlisle; Dr. Fairbank, Windsor; Mr. Gabb, Hastings; Mr. King, Pernambuco; Dr. Mally, Graaff Reinet, Cape of Good Hope; Messrs. Corbyn and Co., London; Dr. Nicholls, Chelmsford; Dr. Imlach, Liverpool; Dr. Churton, Leeds; Mr. Masterman, Ixworth; Mr. Le Quesne, Reading; Dr. Weir, Leicester; Mr. Richards, Plaistow; Dr. Frodsham, Streatham; Mr. Mahony, London; Mr. McDougall, Runcorn; Mr. Ingpen, London; Dr. Roberts, London; Mr. Wade, Birmingham; Dr. Hicks, Bushey; Mr. Harrisson; Mr. Whitworth, Bath; Dr. Duncanson, Edinburgh; Mr. Edmonds; Mr. Hunt; Mr. Hill, Manchester; Rev. A. [J. D. D'Orsey; Dr. Phillips; Dr. Johnstone, Cupar; Mr. Walker, Exeter; Mr. Davey; Dr. Wickham, Newcastle; Mr. Sanders; Mr. Thomas; Mr. Williams, Merthyr; Dr. Anderson; Mr. Turnerelli; Mr. Green, Stourport; Dr. Burggraève; Dr. Tatham; Mr. Talfourd; Mr. Murphy; Dr. Edis, Liverpool; Mr. Watkins, Worcester; Dr. Turner, Keith; Mr. Haviland, Northampton; Mr. Fox; Mr. Vardon, Edinburgh; Mr. T. Jones; Mr. Selle; A. B. B.; A Disgusted One; F.R.C.S. Eng.; Dum Spiro Spero; X.X.X.; In Doubt; Dubitans; F.R.C.P. Ed.; J. Y. G.; Subscriber; Nerve; The Secretary of the Royal College of Surgeons, Edinburgh; A. B., Kentish-town-road; Medico; Justice; The President of the Sanitary Institute; M.D., Liverpool; Omega; The Society of Public Analysts; G. F. C.; Staff-Surgeon; The Registrar-General of Births &c.; Omnia Sanitas; Alpha; Assistant-Paymaster, R.N.; The Registrar-General of Edinburgh; A London Student; Matron; Medicus, Bristol, &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Elliott, Andover; Dr. Ritchie, Otley; Mr. Goodwin, Spring Grove; Mr. Evans; Dr. Akerman; Mr. Clements; Mr. Thomson; Mr. Taylor; Dr. Waters, Chester; Mr. Aspinall, Darwen; Dr. Verling, Newarket; Dr. Lowther; Mr. Pritchard; Mr. Horsfield; Mr. Jenkinson; Mr. Hyde, Witney; Mr. Woolley, Heanor; Mr. Buckby; Messrs. Holderness and Co., Manchester; Dr. Stephenson; Messrs. Burgoyne and Co., London; Messrs. Porteous and Co., Glasgow; Practitioner; Alpha, Liverpool; M.D., Weston-super-Mare; Woodland, Leicester; Chirurgicus; J. B.; Medicus, Edinburgh; A. P. G.; Doctor; House-Surgeon; A. F. E., Rayton; M.D., Rochdale; R. S.; E. H. A., Maidstone; Delta, Edinburgh; T. M., Thrapstone; H. J. S.; L. B., Braintree; C. H.; G. L.; J. T. M., Newcastle.

Burton-on-Trent Weekly News, Stratford-upon-Avon Herald, Bradford Observer, Royal Gazette, Royal Leamington Spa Courier, Glasgow News, Stratford-upon-Avon Chronicle, West London Observer, Yarmouth Independent, British Architect, Berwick Advertiser, Cork Constitution, Broad Arrow, Graphic Summer Number, Croydon Advertiser, Finance Chronicle, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, JUNE 20TH, 1878.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jun. 14	29·90	E.	49	52	66	58	49	0·29	Overcast
,, 15	29·90	N.E.	48	54	86	61	46	..	Cloudy
,, 16	29·82	W.	54	58	93	65	50	0·48	Cloudy
,, 17	29·84	N.E.	52	55	90	66	51	0·04	Overcast
,, 18	29·91	W.	55	61	94	69	53	0·02	Hazy
,, 19	29·90	N.W.	56	61	81	66	52	..	Hazy
,, 20	30·07	S.E.	57	60	105	76	52	0·24	Hazy

Medical Diary for the ensuing Week.

Monday, June 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, June 25.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M.

Wednesday, June 26.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, June 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, June 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. Frank Crisp, "On the Influence of Diffraction in Microscopical Vision."

Saturday, June 29.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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